

# The Benjamin Fox Orthopedic Research Fellowship



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

**John M. Flynn, MD**

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

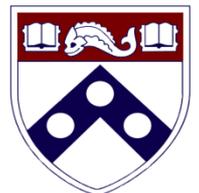
**Theodore J. Ganley, MD**

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



**Wudbhav N. Sankar, MD**

Director, Young Adult Hip Preservation Program, CHOP  
Assistant Professor of Orthopedic Surgery,  
University of Pennsylvania School of Medicine



# The Benjamin Fox Orthopedic Research Award

## Award Details

The [CHOP Benjamin Fox Orthopedic Research Scholar Award](#) promotes clinical research by giving extraordinary medical students the opportunity to investigate pertinent topics in clinical orthopedic research at The Children's Hospital of Philadelphia. While there are several funded year-out programs for medical school students to conduct research, this award is unique because it is specifically designed for students who are interested in pursuing a career in Orthopedic Surgery. The Ben Fox Program focuses on giving the medical student clinical research opportunities, advanced orthopedic skills through weekly clinical exposure, and mentoring for residency applications and beyond.

## Division of Orthopedic Surgery at The Children's Hospital of Philadelphia

The Children's Hospital of Philadelphia is internationally recognized for its pioneering work in pediatric orthopedic patient care, education, and basic and clinical research. The Division of Orthopedic Surgery at CHOP has consistently ranked among the top pediatric orthopedic programs in the nation by *U.S. News & World Report*. CHOP orthopedic surgeons are leaders in their fields – pioneering clinical innovations, writing textbooks, chairing courses and leading regional, national and international organizations in orthopedics. We have 28 attending physicians, each with different subspecialties in pediatric orthopedics.

## Eligibility

Applicants should be completing their **third year of medical school**. The student must be in good academic standing and have an interest in pursuing a career in Orthopedic Surgery. The successful applicant will be responsible, motivated, intellectually curious and independent.

## Award Stipend and Benefits

The recipient of this award will receive a \$30,000 stipend to cover living expenses for the year, as well as travel expenses for national presentations.

## How to Apply

Eligible students can apply by visiting the [CHOP Orthopedic website](#). After clicking on the link, please go to the section entitled "Professional Resources for Orthopedics". Under "Other educational programs" the link to the [Benjamin Fox Orthopedic Research Scholar Award](#) can be found. Detailed directions for submission can be found on the application. The deadline for the application is **February 4<sup>th</sup>, 2018**. We recommend submitting an application as soon as possible.

If you have any questions regarding the application, contact Divya Talwar at [talward@email.chop.edu](mailto:talward@email.chop.edu)



# The Ben Fox Fellowship Experience



*Through the Ben Fox fellowship, I gained life-long role models who showed me what it takes to become an academic leader and also provide exemplary patient care; both with an inspiring degree of dedication and integrity. While I was only a medical student the fellowship became a springboard for my eventual career in pediatric orthopaedic surgery.*

**Neeraj Patel (BFF 2010-2011)**  
Orthopaedic Surgery Resident, NYU

*The Benjamin Fox Fellowship allowed me to explore what "academic medicine" truly is from an insider's perspective. I gained valuable knowledge and fundamental skills that I have translated both into my practice of orthopaedics as a resident and in conducting research. The experience both helped strengthen my application as an orthopaedic candidate and allowed me to form strong, life-long mentorship relationships which have been, and continue to be, truly valuable.*

**Itai Gans (BFF 2012-2013)**  
Orthopaedic Surgery Resident, Johns Hopkins



*The Benjamin Fox Orthopaedic Research Fellowship was the most formative experience of my medical school career. The dedication of the faculty mentors to their research fellows, during the fellowship year and beyond, is unparalleled, and the opportunity to spend an entire year immersed in all aspects of orthopaedics with these world-renowned surgeons and researchers was invaluable both to my education and to furthering my future career as an orthopaedic surgeon.*

**Chrissy Goodbody (BFF 2013-2014)**  
Orthopaedic Surgery Resident, Hospital for Special Surgery



*My time as a Ben Fox Fellow was the most formative experience of medical school. The support I received to build a knowledge foundation in orthopaedics and pursue meaningful research is surpassed only by faculty members' dedication to serving as lifelong mentors. There is simply no better preparation for orthopaedic residency training.*

**Chris Brusalis (BFF 2015-2016)**  
Orthopaedic Surgery Resident, Hospital for Special Surgery



Three generations of Ben Fox Fellows. From left to right: Jigar Gandhi, Nakul Talathi, Alexander Adams (BFF 2017-2018), Neeraj Patel (BFF 2010-2011), and David Ramski (BFF 2011-2012).



# The Benjamin Fox Fellowship – Research

The [Ben Fox Orthopedic Fellowship](#) is a funded year-out research position designed for third year medical students destined for a career in orthopedic surgery. The goal is to launch the careers of tomorrow's leaders in our field.

There are three components to the program: research, clinical exposure and mentoring. For the research focus, the Ben Fox fellows take on several projects, prospective and retrospective, single-center and multi-center, some of which were started prior to their arrival, and some of which will begin during their year. The research is designed to answer questions and solve problems in the area of pediatric orthopedic trauma; sports medicine; spine, hip and hand disorders; patient safety; healthcare quality and value; as well as medical economics. Students meet with Drs. Flynn, Ganley and Sankar several times per week to assure satisfactory supervision and mentorship.

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

- 7 orthopedic CRCs who can help the student design and complete IRB's, adhere to Division and CHOP research policies, review clinical data, measure X-rays, and complete manuscripts for publication. They offer crucial assistance to new students and researchers who join our Division.
- A Research Manager whose advice and support will be invaluable as you navigate the logistical and compliance challenges of 21<sup>st</sup> clinical research.
- Four U.S.-trained clinical fellows and an international research fellow, each of whom has their own individual projects, but with their other obligations, often welcome and mentor medical student collaborators.
- An active Orthopaedic Engineering research program directed by Dr. Saba Pasha, PhD. Current orthopaedic engineering studies include a clinical trial evaluating patient positioning in the EOS x-ray machine.
- Extremely active academic surgical faculty, with at least 6 internationally-known thought leaders among our 17 full-time surgeons and 5 non-operative surgeons. A faculty member and research manager with an MPH, who can assist the student with study design and statistical analysis.
- Nearly 160+ 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 medical 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.

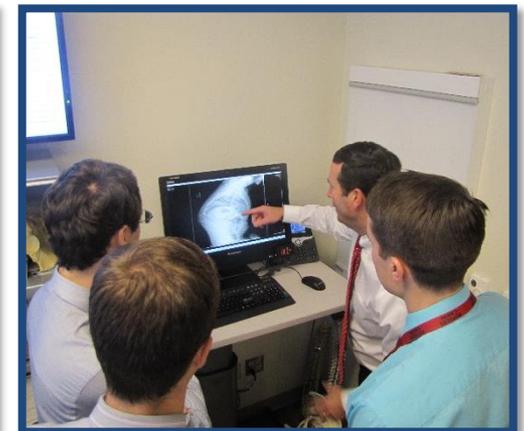
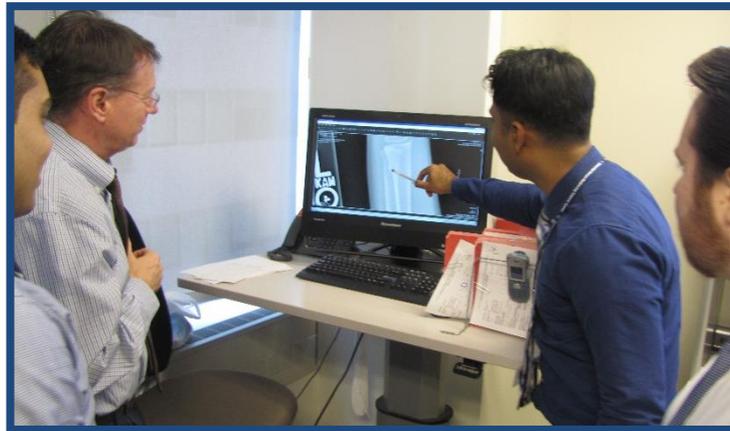
Completed projects by Benjamin Fox fellows are published in the best orthopedic journals and are presented at the American Academy of Orthopaedic Surgeons, the Scoliosis Research Society, the American Academy Society for Orthopaedic Sports Medicine, the Pediatric Orthopaedic Society of North America and the American Academy of Pediatrics. In many cases, whenever permissible and possible, the Benjamin Fox Fellows present their research at these national meetings. There are several Division research meetings per year and an opportunity to present research to the entire CHOP Orthopedic Division at the year-end orthopedic research symposium.



# The Benjamin Fox Fellowship – Clinical Orthopedics

The second aspect of this program is strong clinical exposure. The Benjamin Fox Fellow participates actively in the outpatient clinical program in the Division of Orthopedics at CHOP. There are weekly outpatient clinics where the Benjamin Fox Fellow will be trained and mentored to participate in trauma and sports clinics. Weekly, the Benjamin Fox Fellow sees patients alongside Dr. Flynn, Dr. Ganley or Dr. Sankar, developing mastery of pediatric physical exam of the shoulder, knee, fractures, spine and hip, image interpretation and decision making. Additionally, Fellows participate in surgeon-of-the-day clinics, specifically gaining experience in the evaluation of patients with urgent injuries. Typically, by the end of the year, the Benjamin Fox Fellow functions at a level above a senior resident.

There are also opportunities to observe surgical procedures in the operating room. In addition, the Benjamin Fox Fellows are welcomed and encouraged to attend a very rich variety of clinical conferences in the Division of Orthopedic Surgery at CHOP, including didactic lectures, a weekly case presentation conference, University of Pennsylvania Orthopedic Grand Rounds every Thursday morning, and a quarterly clinical research journal club attended by all faculty, students, residents and fellows. With the experience in clinic, observation in the operating room, attendance of conferences, and the interaction with the University of Pennsylvania orthopedic residents and fellows, the year-out medical students advances to the next level of training far ahead of those students who have spent the year just doing clinical rotations.



# Mentors



**Theodore J. Ganley, MD**

Dr. Ganley has been an attending surgeon at CHOP for over 20 years. He is Director of The Sports Medicine and Performance Center at The Children's Hospital of Philadelphia. Dr. Ganley completed a sports medicine fellowship at The Graduate Hospital, in affiliation with The University of Pennsylvania, and completed a second fellowship in pediatric orthopedics at CHOP. He is one of a small group of surgeons in the country with a primary focus on sports and trauma in the young athlete. He is a member of several multicenter research groups, is a co-founding member of the Research in Osteochondritis Dissecans of the Knee (ROCK) group, and a member of the Multicenter ACL Revision Study (MARS) group and Pediatric ACL: Understanding Treatment Outcomes (PLUTO).

Dr. Ganley has published more than 100 peer-reviewed scientific articles, reviews or textbook chapters, and was editor of a Clinics in Sports Medicine book on ACL injury in the young athlete this past year. He lectures nationally and internationally on ACL reconstruction, OCD lesions, sports and trauma in the young athlete. He served on executive committee for American Academy of Pediatrics. Dr. Ganley is also Program Chair for the Philadelphia Orthopaedic Society, second Vice President for Pediatric Research in Sports Medicine (PRISM) and serves on the POSNA Evidence Based Practice Committee.

Dr. Ganley is married and has five children. He enjoys the academic aspects of clinical medicine and working with the Ben Fox Fellows.



# Mentors



**John M. Flynn, MD**

[Dr. Flynn](#) joined the CHOP team in 1996, after completing 18 months of Fellowship at Boston Children's and DuPont. After 10 years as Associate Chief, he became Orthopaedics Division Chief in 2014.

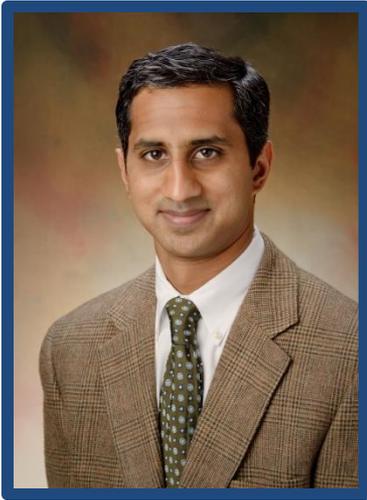
Dr. Flynn's clinical focus includes spine deformity, early onset scoliosis/thoracic insufficiency, fractures, pre-school hip disorders and CP. He initiated the CHOP programs for hip preservation, TIS/VEPTR, MAGEC rods, Mehta casting and image guided navigation for pedicle screw placement. He is the author of over 230 peer reviewed papers, reviews and chapters, and editor of the seminal texts in pediatric orthopaedics: Lovell and Winter's Pediatric Orthopaedics, Rockwood's Fractures in Children, Operative Techniques in Pediatric Orthopaedics, as well as OKU 10 and Staying out of Trouble in Pediatric Orthopaedics. He is currently the President of the Board of Directors for the Children's Spine Foundation.

Dr. Flynn served as the President of the Pediatric Orthopaedic Society of North America in 2013-2014, and is Chair Emeritus of the International Pediatric Orthopaedic Symposium. He is currently the Chair of the AAOS CME Courses Committee and a Director, American Board of Orthopaedic Surgery.

A winner of multiple Penn teaching awards, he lectures nationally and internationally on management of spinal disorders, pediatric fracture care, safety and value in spine care, and work-life integration for surgeons. His primary passion, however, is family: his wife Mary and four kids—Erin, Colleen, John and Kelly



# Mentors



**Wudbhav N. Sankar,  
MD**

[Dr. Sankar](#) has been an orthopedic surgeon at CHOP for more than five years, and is director of the young adult hip preservation program. He is a graduate of Cornell University and the University of Pennsylvania School of Medicine. After finishing his orthopedic residency at the University of Pennsylvania, Dr. Sankar completed three additional fellowships in the areas of pediatric orthopedic surgery and adolescent hip surgery at Children's Hospital Los Angeles, the Shriners Hospitals for Children in Los Angeles, and Boston Children's Hospital. He is one of a small group of surgeons in the country with special expertise in complex adolescent and young adult hip reconstruction.

Dr. Sankar is a member of several multicenter research groups including the International Perthes Study Group, the International Hip Dysplasia Institute, and the Academic Network of Conservational Hip Outcomes Research (ANCHOR). In 2012, Dr. Sankar received the Young Investigator Award at the AAOS/ORS Femoroacetabular impingement research symposium. He currently serves as medical director for International Hip Dysplasia Institute.

Dr. Sankar has published more than 50 peer-reviewed scientific articles, reviews or textbook chapters, and co-edits the pediatric sub-section of *Operative Techniques in Orthopaedic Surgery*, along with Dr. Flynn. Dr. Sankar is an at-large member of the board of directors of the Pediatric Orthopaedic Society of North America (POSNA).

Dr. Sankar is married and has two children.

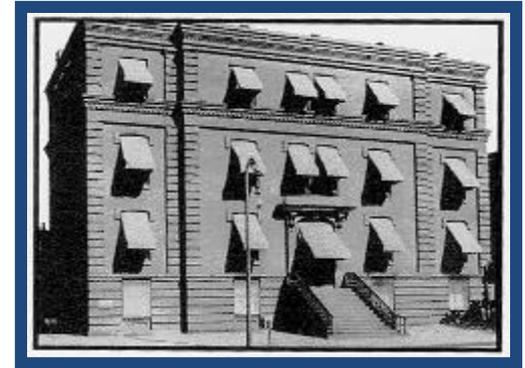


# The Children's Hospital of Philadelphia

The Children's Hospital of Philadelphia (CHOP) is not only the oldest pediatric hospital in the United States, it is also one of the top-ranked children's hospitals in the world. In addition to providing excellent patient care, CHOP excels at research by devising and committing to projects aimed at developing cures for chronic and fatal pediatric illnesses and disorders. Because awareness of disease is important in the prevention of illness, CHOP also strives to educate the public – not only on ways to prevent disease – but also on ways to support independent living for those with debilitating conditions.

CHOP was founded in 1855, when Francis West Lewis MD, inspired by his visit to the Great Ormond Street Hospital for Sick Children in London, built the first pediatric hospital in the United States. In collaboration with three other doctors, the team constructed a pediatric center that included 12 beds and a dispensary. A year later, the hospital's physicians treated 67 inpatients and 306 clinical patients. Since its first year, the hospital has relocated its building on three separate occasions. On June 23<sup>rd</sup>, 1974, the hospital settled at 34<sup>th</sup> Street and Civic Center Boulevard, its current location. In 1976, C. Everett Koop, MD, not only established the pediatric surgical division, but also performed ground-breaking procedures that brought notoriety to the hospital.

CHOP has earned recognition as the nation's best pediatric hospital from two respected publications: [\*U.S. News & World Report\*](#) named CHOP No. 2 on its 2015-2016 Honor Roll of Best Children's Hospitals in the nation; and [\*Parents magazine\*](#) named CHOP No. 1 on its 2013 list of Top 10 Best Children's Hospitals. To learn more, see [Why Choose CHOP?](#)



# History of the Division



Jesse Nicholson, MD



Stanley Chung, MD



Hugh Watts, MD



Denis Drummond, MD



John P. Dormans, MD



John M. Flynn, MD

In 1889, with the financial help of the Ladies' Auxiliary, DeForest Willard organized the first orthopedic children's ward at the University of Pennsylvania. Since then, The Children's Hospital of Philadelphia has seen six Chiefs of Orthopedic Surgery. The first, Charles Merrill, MD, was instated as Chief, but unfortunately died one month later.

In 1936, Jesse Nicholson, MD, replaced Merrill as Chief of Orthopedic Surgery. Nicholson's position as Chief ended in 1968, and he was succeeded six years later by Stanley Chung, MD, who served from 1974-1979. In 1979, Hugh Watts, MD, took over as Division Chief. Six years later, Denis Drummond, MD, succeeded Dr. Watts, and served from 1985-1996. John P. Dormans, MD led the Division from 1996-2014. Subsequently Dr. Flynn succeeded him as Chief of Orthopedic Surgery.



# The City of Philadelphia

## A Brief History of Philadelphia

- In 1682, William Penn bought land from the local Lenape Indian village of Shackamaxon.
- In 1701, Penn issued a Charter, establishing Philadelphia as a city.
- From 1790 to 1800, Philadelphia served as the capital of the United States of America.
- As businesses boomed within this area, the population reached two million residents in 1950.
- Today, Philadelphia remains a commercial, educational, and a diverse center of culture, art, architecture, cuisine, and sports.



## Philadelphia and Medicine

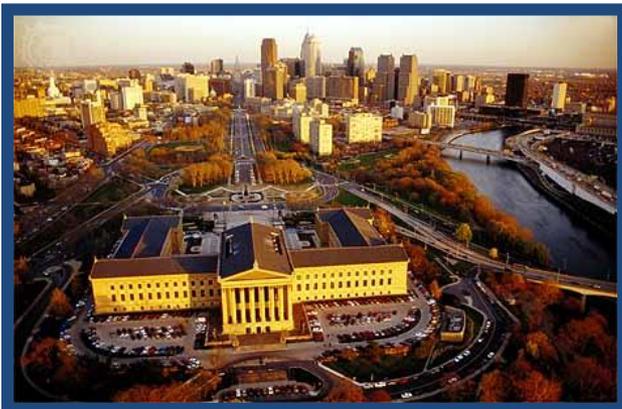
- Philadelphia has become an important center for medicine, an association that the city has had since its colonial period.
- Philadelphia is home to the first hospital in the British North American colonies.
- Philadelphia is also the home of the first medical school, located today at the University of Pennsylvania.
- The first pediatric hospital in the United States was established in Philadelphia in 1855 (The Children's Hospital of Philadelphia).
- Major hospitals within Philadelphia are also affiliated with Temple University School of Medicine, Drexel University College of Medicine, Thomas Jefferson University, and Philadelphia College of Osteopathic Medicine.



# The City of Philadelphia

## Ideal Location

- Philadelphia is located ideally between many popular attractions on the northeast coast of the United States.
- As indicated on the map to the right, Philadelphia (point A) is a short distance from New York City (point B - 95 miles), the Pocono Mountains (point C - 135 miles), Cape May (point D - 92 miles), and Baltimore (point E - 100 miles).
- The area surrounding Philadelphia has much to offer: whether it's seeing Broadway shows in New York, skiing in the Pocono's, relaxing on the beach in Cape May, or visiting Baltimore's Inner Harbor to catch and dine on some of the best crab on the east coast, the Philadelphia area is brimming with things to see, do, and experience.



## Art and Food

- Philadelphia is home to many museums, including the Philadelphia Museum of Art, one of the largest art museums in the United States; the Pennsylvania Academy of Fine Arts; the Rodin Museum, which boasts the largest collection of works by Auguste Rodin outside of France; and the Philadelphia Sketch Club.
- Annual events include film festivals and parades, the most well-known being the New Year's Day Mummers Parade.
- The city is also known for its food – from hoagies to cheesesteaks, scrapple to soft pretzels, water ice to Tastykakes.



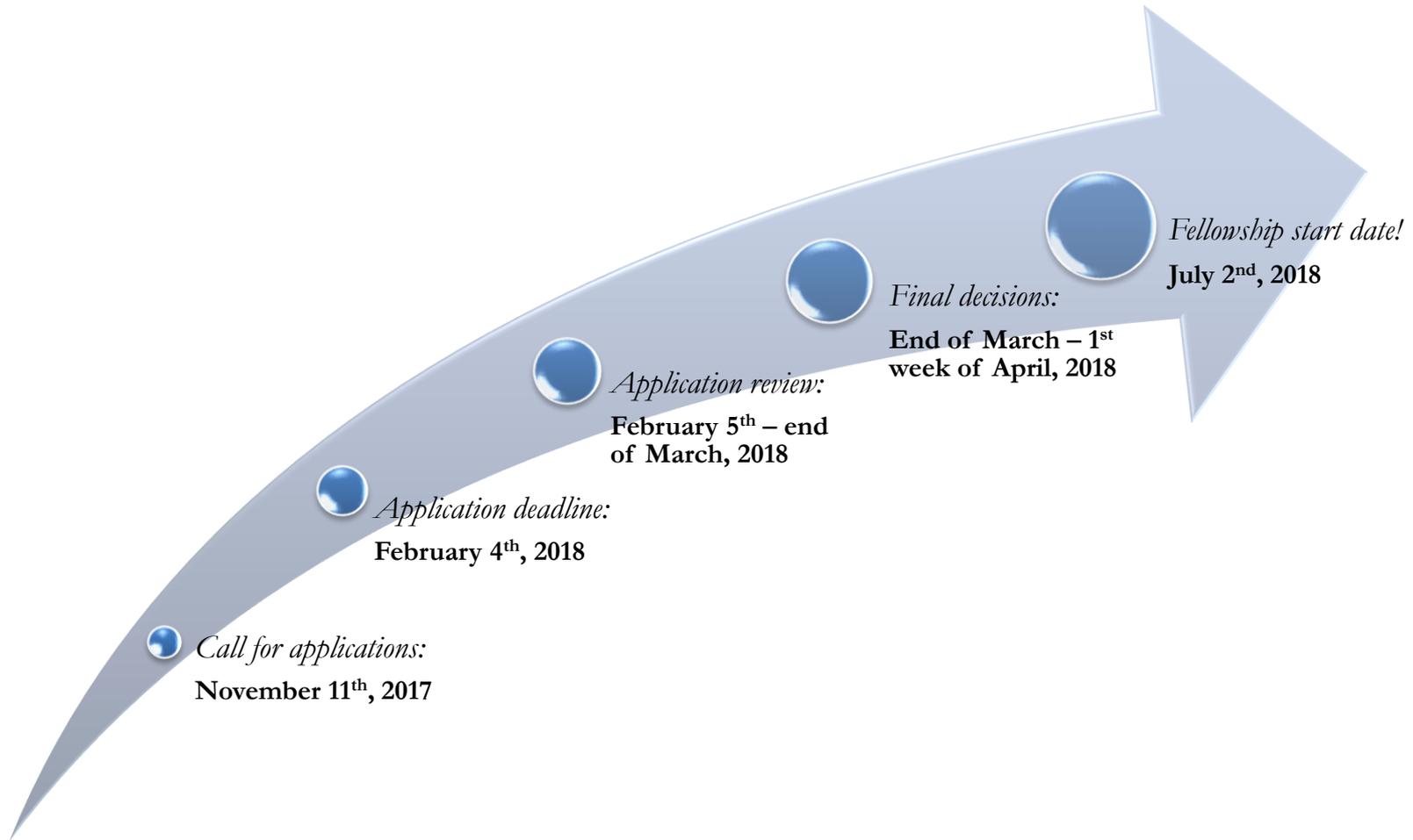
# The City of Philadelphia

## Sports

- Philadelphia is one of 13 cities in the nation to have all four major sports teams: the Philadelphia Eagles of the National Football League, the Philadelphia Flyers of the National Hockey League, the Philadelphia Phillies of Major League Baseball, and the 76ers of the National Basketball Association.
- Sporting events such as the Penn Relays, the Philadelphia Marathon, the Broad Street Run, and the Aberdeen Dad Vail® Regatta attract professional, semi-professional, and elite amateur teams and individuals from all over the country to the city as well.



# Application Timeline



# Current Ben Fox Fellows



**Alexander Adams**

2017-2018

Sidney Kimmel Medical College at  
Thomas Jefferson University

**Alex Adams** grew up in Annapolis, Maryland. In 2014, Alex earned his Bachelor of Science with Magna Cum Laude honors from Georgetown University, studying human science and chemistry. During college, he served as Chapter President of the Alpha Sigma Nu Honors Society, Head Tutor of Human Biology, volunteer EMT, and club ice hockey team member. He recently completed his third year of medical school at Thomas Jefferson University, where he is a two-time recipient of the Pennsylvania Medical Society A.M.E.S Award and member of the College within the College Clinical Translational Research Track. His current research interests at CHOP are on risk factors for pediatric limb fracture complications, reducing unnecessary perioperative measures including blood-drawn labs and opioid overprescribing, and characterizing neuromuscular and early-onset scoliosis treatment outcomes. Alex is the middle child of three and will be getting married this spring to his fiancée, Jordan.



# Current Ben Fox Fellows



**Nick Talathi** was raised in Alpharetta, Georgia, a suburb of Atlanta. He attended the University of Georgia, where he was a part of the honors program and graduated Phi Beta Kappa with a double major in Genetics and Psychology. While at UGA, Nick was passionate about Special Olympics and co-created Aces for Athens, an organization dedicated to increasing the availability of fitness programs for the special needs community. Nick recently completed his 3rd year at the University of Pennsylvania Perelman School of Medicine and is a Gamble Scholar. Outside of academics, Nick enjoys following Georgia Football, basketball and running, and exploring Philly's lively restaurant scene.

**Nakul (Nick) Talathi**

2017-2018

University of Pennsylvania School  
of Medicine



# Current Ben Fox Fellows



**Jigar (Jay) Gandhi**  
2017-2018  
Rutgers New Jersey  
Medical School

**Jigar Gandhi** was born and raised in India where he attended high school and two years of college. After arriving to the United States, he enrolled in a pharmacy school at Rutgers University. While in pharmacy school, Jigar worked as an analytical research and development scientist for three years at Amneal Pharmaceuticals. After receiving his Doctor of Pharmacy degree in 2012, he worked as an oncology pharmacist at the Memorial Sloan Kettering Cancer Center in New York City. He recently completed his third year of medical school at Rutgers New Jersey Medical School. As a Ben Fox Fellow, Jigar has been involved in over 12 major clinical research projects. His research interests are in the field of scoliosis, Perthes disease, osteochondritis dissecans, and pediatric trauma. He enjoys learning from the great orthopaedics team at CHOP, and hopes to continue pursuing his research interests as a physician-scientist in the future.



# Prior Ben Fox Fellows

## Selected Publications and Presentations



**Brendan Striano**  
2016-2017

Rutgers Robert Wood Johnson  
Medical School

**Striano BM**, Jackson TJ, Miller D, Sankar W. Current concepts in management of unstable slipped capital femoral epiphysis. *University of Pennsylvania Orthopaedic Journal*. Vol. 27. June 2017.

**Striano BM**, Flynn JM. Value in pediatric orthopaedics. *University of Pennsylvania Orthopaedic Journal*. Vol. 27. June 2017.

Flynn JM, **Striano BM**, Wallis MT, Kraus B, Sankar WN, Mehta V, Blum M, DeZayas B, Feldman J, Keren R. A dedicated pediatric spine deformity team significantly reduces surgical time and cost. Podium presentation (presented by Flynn JM) at the 52<sup>nd</sup> Annual Scoliosis Research Society (SRS) Meeting. Philadelphia, PA, USA; September, 2017.

*Manuscripts in Preparation*

**Striano BM**, Flynn JM. VEPTR associated surgical site infections.

**Striano BM**, De Mattos C, Ramski D, Flynn JM, David H. Displaced supracondylar humerus fractures in toddlers: are they different?

**Striano BM**, Talwar D, Shah AS. Hospital variation in open reduction rates for pediatric supracondylar humerus fractures.

**Striano BM**, Brusalis CM, Flynn JM, Talwar D, Apurva S. Operative time and cost varies by surgeon: analysis of a common pediatric orthopaedic procedure.

Flynn JM, **Striano BM**, Wallis MT, Kraus B, Sankar WN, Mehta V, Blum M, DeZayas B, Feldman J, Keren R. A dedicated pediatric spine deformity team significantly reduces surgical time and cost.

**Striano BM**, Talwar D, Shah AS, Hospital variation in open reduction rates for pediatric supracondylar humerus fractures. Poster presentation at the 72<sup>nd</sup> Annual Meeting of the American Society for Surgery of the Hand (ASSH). San Francisco, CA, USA; September, 2017.



# Prior Ben Fox Fellows

## Selected Publications and Presentations



**Taylor Jackson**

2016-2017

University of Texas  
Southwestern Medical Center

**Jackson TJ**, Shah AS, Arkader A. Is routine spine MRI necessary in skeletally immature patients with MHE? Identifying patients at risk for spinal osteochondromas. *Journal of Pediatric Orthopaedics*. 2017 Oct 9. PMID: 29016429. [Epub ahead of print].

**Jackson TJ**, Storey EP, Ganley TJ. The surgical management of tibial spine fractures in children: a survey of the Pediatric Orthopaedic Society of North America (POSNA). *Journal of Pediatric Orthopaedics*. 2017 Oct 24. PMID: 28945692. [Epub ahead of print].

**Jackson TJ**, Blumberg TJ, Shah AS, Sankar WN. Time is money: inappropriately-timed pediatric orthopaedic referrals from the emergency department results in unnecessary appointments and financial burden for patients. *Journal of Pediatric Orthopaedics*. Accepted 5 Oct 2017.

Striano BM, **Jackson TJ**, Daniel Miller D, Sankar W. Current concepts in management of unstable slipped capital femoral epiphysis. *University of Pennsylvania Orthopaedic Journal*. Vol. 27. June 2017.

**Jackson TJ**, Storey EP, Ganley TJ, Tibial Spine Interest Group. The surgical management of tibial spine fractures in the skeletally immature: a survey of the Pediatric Orthopaedic Society of North America (POSNA); Presentation at POSNA/AAOS International Pediatric Orthopaedic Symposium, Orlando, FL, USA; December, 2016.

**Jackson TJ**, Storey EP, The Tibial Spine Interest Group, Ganley TJ. The surgical management of tibial spine fractures in children: a survey of treating providers. Podium presentation (presented by Ganley TJ) at the American Academy of Pediatrics (AAP) National Conference; Chicago, IL, USA. September, 2017.

**Jackson TJ**, Fabricant PD, Beck N, Storey EP, Ganley TJ. Meniscus tears in skeletally immature patients: a 16-year experience of a single center. Accepted E-poster presentation at the 5<sup>th</sup> Annual Meeting of the Pediatric Research in Sports Medicine (PRiSM) Society; Fort Lauderdale, FL, USA. January, 2018.

**Jackson TJ**, Storey EP, The Tibial Spine Interest Group, Ganley TJ. The surgical management of tibial spine fractures in children: a survey of treating providers. Accepted podium presentation at the 5<sup>th</sup> Annual Meeting of the Pediatric Research in Sports Medicine (PRiSM) Society; Fort Lauderdale, FL, USA. January, 2018.



# Prior Ben Fox Fellows

## Selected Publications and Presentations



**Chris DeFrancesco**  
2016-2017

University of Pennsylvania  
School of Medicine

**DeFrancesco CJ**, Blumberg TJ, Chauvin NA, Sankar WN. An improved method for measuring hip abduction in spica after surgical reduction for developmental dysplasia of the hip. *Journal of Children's Orthopaedics*. 2017 Aug 1;11(4):277-83. PMID: 28904633.

**DeFrancesco CJ**, Rogers BH, Shah AS. Obesity increases risk of loss of reduction after casting for diaphyseal fractures of the radius and ulna in children: an observational cohort study. *Journal of Orthopaedic Trauma*. 2017 Sep 29. PMID: 28902088. [Epub ahead of print].

**DeFrancesco CJ**, Flynn JM, Smith JT, Luhmann SJ, Sawyer JR, Glotzbecker M, Pahys J, Garg S, Vitale M, Farrington DM, Sturm P. Clinically apparent adverse reactions to intra-wound vancomycin powder in early onset scoliosis are rare. *Journal of Children's Orthopaedics*. 2017 Oct 6;11(0):1-5. DOI: 10.1302/1863-2548.11.170107.

**DeFrancesco CJ**, Shah DK, Rogers BH, Shah AS. The epidemiology of brachial plexus birth palsy in the United States: declining incidence and evolving risk factors. *Journal of Pediatric Orthopaedics*. 2017 Oct 9. PMID: 29016426. [Epub ahead of print].

**DeFrancesco CJ**, Sankar WN. Traumatic pelvic fractures in children and adolescents. *Seminars in Pediatric Surgery*. 2017 Feb 28;26(1), 27-35. PMID: 28302282.

**DeFrancesco CJ**, Storey EP, Ganley TJ. Pediatric ACL reconstruction and return to the operating room: graft failure is less than half of the story. Presentation at POSNA/AAOS International Pediatric Orthopaedic Symposium. Orlando, FL, USA; December, 2016.

**DeFrancesco CJ**, Shah DK, Rogers BH, Shah AS. The epidemiology of brachial plexus birth palsy in the United States: an analysis of trends and risk factors over 16 years. Podium presentation (presented by Shah AS) at the 72<sup>nd</sup> Annual Meeting of the American Society for Surgery of the Hand. San Francisco, CA, USA; September, 2017. (Also accepted presentation at the American Association for Hand Surgery Annual Meeting. Phoenix, AZ, USA; January, 2018.)

**DeFrancesco CJ**, Rogers BH, Shah AS. Obesity increases risk of loss of reduction after casting for diaphyseal fractures of the radius and ulna in children: an observational cohort study. Accepted podium presentation at the American Association for Hand Surgery Annual Meeting. Phoenix, AZ, USA; January, 2018.



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Brusalis CM**, Storey EP, Refakis CA, Ganley TJ. Low-fidelity simulation: an emerging trend in orthopaedic surgical education. *University of Pennsylvania Orthopaedic Journal*. Vol. 26. June 2016.

**Brusalis CM**, Shah AS, Luan X, Lutts MK, Sankar WN. A dedicated orthopaedic trauma operating room improves efficiency at a pediatric center. *J Bone Joint Surg Am*. 2017 Jan 4;99(1):42-7.

Baldwin KB, **Brusalis CM**, Nduaguba AM, Sankar WN. Predictive factors for differentiating between septic arthritis and Lyme disease of the knee in children. *J Bone Joint Surg Am*. 2016 May 04; 98(9):721-728.

Ganley TJ, **Brusalis CM**. Surgical reduction and fixation of tibial spine fractures in children: multiple fixation strategies. *JBJS Essent Surg Tech*. 2016 May 11; 6(2):e18.

Arkader A, **Brusalis CM**, Warner WC Jr, Conway JH, Noonan KJ. Update in pediatric musculoskeletal infections: when it is, when it isn't, and what to do. *J Am Acad Orthop Surg*. 2016 Sept. 24(9):e112-21.

Park K, **Brusalis CM**, Ganley TJ. The 8-strand hamstring autograft in anterior cruciate ligament reconstruction. *Arthroscopy Techniques*. 2016 Oct 31;5(5):e1105-9.

Refakis CA, Storey EP, **Brusalis CM**, Ganley TJ. Pediatric shoulder instability: current trends in management. *University of Pennsylvania Orthopaedic Journal*. Vol. 26. June 2016.

Parikh SN, Jaquith BP, **Brusalis CM**, Redler L, Ganley TJ, Kocher MS. Skeletally immature ACL: controversies and management. *Instr Course Lect*. 2017 Feb 15;66:461-474.

Novais EN, Kestel LA, Carry PM, **Brusalis CM**, Sankar WN. Does surgeon experience impact the risk of complications after Bernese periacetabular osteotomy? *Clin Orthop Relat Res*. 2017 Apr 1;475(4):1110-1117.

**Brusalis CM**, Thibaudeau S, Carrigan RB, Lin IC, Chang B, Shah AS. Pyogenic flexor tenosynovitis in pediatric patients: clinical characteristics and early outcomes. E-poster presentation at 71st Annual Meeting of the American Surgical Society of the Hand. Austin, TX, USA; Sept. 2016.



### Chris Brusalis

2015-2016

University of  
Pennsylvania School of  
Medicine

### Current position:

Orthopedic Surgery  
Resident, Hospital For  
Special Surgery



# Prior Ben Fox Fellows

## Selected Publications and Presentations



### Christian Refakis

2015-2016

University of  
Pennsylvania School of  
Medicine

### Current position:

General Surgery Intern,  
Duke Department of  
Surgery

**Refakis CA**, Storey EP, Brusalis CM, Ganley TJ. Pediatric shoulder instability: current trends in management. *The University of Pennsylvania Orthopaedic Journal*. 2016, Jun; 26(1): 30-33.

**Refakis CA**, Baldwin KD, Speigel DA, Sankar WN. Treatment of the dislocated hip in infants with spasticity. *J Pediatric Orthopaedics*. 2016, Jul 2. [Epub ahead of print].

**Refakis CA**, Turner CD, Cahill PJ. Sports-related concussion in children and adolescents. *Clinical Spine Surgery*. 2017 Jun 1;30(5):191-6.

Cahill PJ, **Refakis, CA**, Storey EP, Warner WC. Concussion in sports: what do orthopaedic surgeons need to know?. *The Journal of the American Academy of Orthopaedic Surgeons*. 2016 Dec;24(12):e193-e201. (Also accepted as a textbook chapter in the AAOS Instructional Course Series, Volume 66).

Ranade S, **Refakis CA**, Cruz AI, Gornitzky AL, Leddy KL, Wells L, Lawrence JT, Ganley TJ. Validated pediatric functional outcomes of all-epiphyseal ACL reconstructions: does reinjury affect outcomes? Poster presented at: The Pediatric Research in Sports Medicine (PRISM) Meeting; San Diego, CA, USA. January, 2016.

Brusalis CM, Storey EP, **Refakis CA**, Ganley TJ. Low-fidelity simulation: an emerging trend in orthopaedic surgical education. *University of Pennsylvania Orthopaedic Journal*. Vol. 26. June 2016.

**Refakis CA**, Sankar WN. Coexisting DDH and spastic hip disease? The treatment of dislocated hips in infants with spasticity. Poster presented at The Pediatric Orthopaedic Society of North America (POSNA) National Meeting; Indianapolis, IN, USA; April, 2016

**Refakis CA**, Flynn JM. Bundles, surveillance and committees: can an all-out assault on PSF SSI yield a measurable return on investment? Results of a 10 year study at a major pediatric spine center. Oral presentation at The Scoliosis Research Society (SRS) Annual Meeting (presented by Flynn, JM); Prague, CZE; September, 2016.



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Yellin JL**, Fabricant PD, Gornitzky A. Rehabilitation of Anterior Cruciate Ligament Tears in Children: A Systematic Review. *JBJS Rev.* 2016 Jan 19;4(1).

Gornitzky AL, Lott A, **Yellin JL**, Fabricant PD, Lawrence JT, Ganley TJ. Sport-Specific Yearly Risk and Incidence of Anterior Cruciate Ligament Tears in High School Athletes: A Systematic Review and Meta-analysis. *Am J Sports Med.* 2016 Oct;44(10):2716-2723

**Yellin JL**, Flynn JM. Operative Treatment of Femur Fractures Using Flexible IM Nails. In: *Master Techniques in Orthopaedic Surgery: Pediatrics*. 2<sup>nd</sup> ed. Philadelphia, PA: Lippincott Williams & Wilkins; In Press 2016

**Yellin JL**, Ho M, Ganley TJ. Knee Disorders in Children. In: *Chapman's Comprehensive Orthopaedic Surgery*. 4<sup>th</sup> ed. New Delhi, India: JP Medical Publishers; In Press 2016

**Yellin JL**, Gans I, Carey JL, Shea KG, Ganley TJ. The Surgical Management of Osteochondritis Dissecans of the Knee in the Skeletally Immature: A Survey of the Pediatric Orthopaedic Society of North America (POSNA) Membership. *J Pediatr Orthop.* 2015 Dec 2. [Epub ahead of print]

**Yellin JL**, Trocle A, Grant SF, Hakonarson H, Shea KG, Ganley TJ. Candidate Loci are Revealed by an Initial Genome-wide Association Study of Juvenile Osteochondritis Dissecans. *J Pediatr Orthop.* 2015 Sep 28. [Epub ahead of print]

Georgiadis AG, Seeley MA, **Yellin JL**, Sankar WN. The presentation of Legg-Calvé-Perthes disease in females. *J Child Orthop.* 2015 Aug;9(4):243-7. doi: 10.1007/s11832-015-0671-y. Epub 2015 Jul 26.

**Yellin JL**, Wiggins CR, Franco AJ, Sankar WN. Safe transcranial electric stimulation motor evoked potential monitoring during posterior spinal fusion in two patients with cochlear implants. *J Clin Monit Comput.* 2016 Aug;30(4):503-6. doi: 10.1007/s10877-015-9730-7. Epub 2015 Jun 24.

Roaten J, **Yellin JL**, Flynn JM, et al. A 10-Year Multi-Center Review of Treatment of Pediatric Femoral Shaft Fractures in High Volume Academic Centers. Presented at European Pediatric Orthopaedic Society Annual Meeting 2015, Marseille, France.



**Joseph Yellin**

2014-2015

University of  
Pennsylvania School  
of Medicine

**Current position:**

Orthopedic Surgery  
Resident, Harvard  
Medical School



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Gornitzky AL**, Mistovich RJ, Atuahene B, Storey EP, Ganley TJ. Osteochondritis Dissecans Lesions in Family Members: Does a Positive Family History Impact Phenotypic Potency? *Clin Orthop Relat Res*. 2016 Sep 6. [Epub ahead of print]

Broom A, Schur MD, Arkader A, Flynn J, **Gornitzky A**, Choi PD. Compartment syndrome in infants and toddlers. *J Child Orthop*. 2016 Oct;10(5):453-60. doi: 10.1007/s11832-016-0766-0.

Yellin JL, Fabricant PD, **Gornitzky A**. Rehabilitation of Anterior Cruciate Ligament Tears in Children: A Systematic Review. *JBJS Rev*. 2016 Jan 19;4(1).

Muhly WT, Sankar WN, Ryan K, Norton A, Maxwell LG, DiMaggio T, Farrell S, Hughes R, **Gornitzky A**, Keren R, McCloskey JJ, Flynn JM.. Rapid Recovery Pathway After Spinal Fusion for Idiopathic Scoliosis. *Pediatrics*. 2016 Apr;137(4). pii: e20151568. doi: 10.1542/peds.2015-1568. Epub 2016 Mar 23.

**Gornitzky AL**, Milby AH, Gunderson MA, Chang B, Carrigan RB. Referral Patterns of Emergent Pediatric Hand Injury Transfers to a Tertiary Care Center. *Orthopedics*. 2016 Mar-Apr;39(2):e333-9. doi: 10.3928/01477447-20160222-06. Epub 2016 Feb 25.

**Gornitzky AL**, Potty AG, Carey JL, Ganley TJ. Repair of Acute-on-Chronic Subscapularis Insufficiency in an Adolescent Athlete. *Orthopedics*. 2015 Sep;38(9):e844-8. doi: 10.3928/01477447-20150902-90.

**Gornitzky AL**, Mistovich RJ, Atuahene B, Ganley TJ. Risk of Osteochondritis Dissecans (OCD) Lesion in Family Members of Patients with OCD: A Pedigree Analysis. *University of Pennsylvania Orthopaedic Journal*. 2015, Jun; 25(1): 51-53.

**Gornitzky AL**, Georgiadis AG, Seeley MA, Horn BD, Sankar WN. Does perfusion MRI following closed reduction of DDH reduce the incidence of avascular necrosis? *Clin Orthop Relat Res*. 2016 May;474(5):1153-65. doi: 10.1007/s11999-015-4387-6.

**Gornitzky AL**, Lott A, Yellin JL, Fabricant PD, Lawrence JT, Ganley TJ. Sport-Specific Yearly Risk and Incidence of Anterior Cruciate Ligament Tears in High School Athletes: A Systematic Review and Meta-Analysis. *Am J Sports Med*. 2016 Oct;44(10):2716-2723.



**Alex Gornitzky**

2014-2015

University of  
Pennsylvania School of  
Medicine

### Current position:

Orthopedic Surgery  
Resident, University of  
California, San  
Francisco



# Prior Ben Fox Fellows

## Selected Publications and Presentations



**Christine  
Goodbody**

2013-2014

University of  
Pennsylvania School  
of Medicine

### **Current position:**

Orthopedic Surgery  
Resident, Hospital  
for Special Surgery,  
New York City, NY

**Goodbody CM**, Sankar WN, Flynn JM. Presentation of Adolescent Idiopathic Scoliosis: The Bigger the Kid, the Bigger the Curve. *J Pediatr Orthop*. 2015 Jun 16. [Epub ahead of print]

**Goodbody C** and WN Sankar. Idiopathic Avulsion Fractures of the Lesser Trochanter in Pediatric Patients. *University of Pennsylvania Orthopaedic Journal*; 2014, 24: 56-57. Poster presented at the International Pediatric Orthopaedic Symposium 2013.

**Goodbody CM**, Lee RJ, Flynn JM, Sankar WN. Titanium Elastic Nailing for Pediatric Tibia Fractures: Do Older, Heavier Kids Do Worse? *J Pediatr Orthop*. 2016 Jul-Aug;36(5):472-7. doi: 10.1097/BPO.0000000000000483.

Magnan H, **Goodbody CM**, Riedel E, Pratilas CA, Wexler LH, Chou AJ. Ifosfamide dose-intensification for patients with metastatic Ewing sarcoma. *Pediatr Blood Cancer*. 2015 Apr;62(4):594-7. doi: 10.1002/pbc.25373. Epub 2015 Jan 28.

Barrett KK, Skaggs DL, Sawyer JR, Andras L, Moisan A, **Goodbody C**, Flynn JM. Supracondylar fractures with isolated anterior interosseous nerve injuries: Are they urgent cases? *J Bone Joint Surg Am*. 2014 Nov 5;96(21):1793-7. Presented at the POSNA Annual Meeting 2014, Hollywood, CA. Presented at the EPOS Annual Meeting 2014, Bruges, Belgium.

**Goodbody C**, Asztalos I, Sankar WN, Flynn JM. It's Not Just the Big Kids: Both High and Low BMI Impact Bracing Success for Adolescent Idiopathic Scoliosis. *J Child Orthop*. 2016 Oct;10(5):395-404. doi: 10.1007/s11832-016-0763-3.

**Goodbody C**, Asztalos I, Sankar WN, Flynn JM. It's Not Just the Big Kids: Both High and Low BMI Impact Bracing Success for Adolescent Idiopathic Scoliosis. Presented at the American Academy of Pediatrics National Conference 2014, San Diego, CA.; American Academy of Orthopaedic Surgeons Annual Meeting 2015, Las Vegas, NV; POSNA, 2015. Received the Young Investigator in Training Award: Outcomes at the 2014 AAP National Conference.

**Goodbody C**, Lee RJ, Ganley TJ. Caring for the Athlete. In: Abzug, Joshua M., Kozin, Scott, Zlotolow, Dan A, Nduaguba A, **Goodbody C**, Sankar WN, Wells L. Core Decompression Surgery for Avascular Necrosis Can Delay Femoral Head Collapse in Patients with Sickle Cell Disease: A Case Report. *University of Pennsylvania Orthopaedic Journal*; 2014, 24: 58-60.



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Nduaguba AM**, Flynn JM, Sankar WN. Septic Arthritis of the Elbow in Children: Clinical Presentation and Microbiological Profile. *J Pediatr Orthop*. 2016 Jan;36(1):75-9. doi: 10.1097/BPO.0000000000000390.

**Nduaguba A**, Goodbody C, Sankar WN, Wells L. Core Decompression Surgery for Avascular Necrosis Can Delay Femoral Head Collapse in Patients with Sickle Cell Disease: A Case Report. *University of Pennsylvania Orthopaedic Journal*; 2014, 24: 58-60.

**Nduaguba A**, Sankar WN. Avascular Necrosis in Adolescent Girls Involved in High-Impact Activities: Could Repetitive Micro-trauma Be the Cause? *JBJS Case Connector*, 2014 May 14;4(2):e35.

**Nduaguba A**, Flynn JM, Sankar WN. Similar efficacy of abduction brace and closed reduction in treating DDH in infants who fail Pavlik harness. Presented at the American Academy of Pediatrics National Conference 2014, San Diego, CA. To be presented at the Pediatric Orthopaedic Society of North America Annual Meeting, 2015.

Baldwin KB, Brusalis CM, **Nduaguba AM**, Sankar WN. Predictive factors for differentiating between septic arthritis and Lyme disease of the knee in children. *J Bone Joint Surg Am*. 2016 May 04; 98(9):721-728.

Sankar WN, **Nduaguba A**, Flynn JM. Ifeld abduction orthosis is an effective second-line treatment after failure of Pavlik harness for infants with developmental dysplasia of the hip. *J Bone Joint Surg Am*. 2015 Feb 18;97(4):292-7. doi: 10.2106/JBJS.N.00707.

Spiegel DA, **Nduaguba A**, Cherian MN, Monono M, Kelley ET. Deficiencies in the availability of essential musculoskeletal surgical services at 883 health facilities in 24 low- and lower-middle-income countries. *World J Surg*. 2015 Jun;39(6):1421-32. doi: 10.1007/s00268-015-2971-2.



**Afam Nduaguba**  
2013-2014  
Harvard Medical  
School

**Current position:**  
Orthopedic  
Surgery Resident,  
Yale University,  
New Haven, CT



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Sarkissian EJ**, Albaugh JD, Ganley TJ. Pediatric ACL injury prevention: improving strength and performance with a prevention program. *University of Pennsylvania Orthopaedic Journal*. 2013; 23: p46-48.

**Sarkissian EJ**, Ganley TJ. ACL reconstruction in the skeletally immature patient: all-epiphyseal, all-inside, with quadrupled semitendinosus autograft. *University of Pennsylvania Orthopaedic Journal*. 2013; 23: p17-19. Presentation at the 2012 POSNA/AAOS International Pediatric Orthopaedic Symposium, Orlando, FL.

**Sarkissian EJ**, Gans I, Gunderson MA, Flynn JM. Community-acquired *staph aureus* musculoskeletal infections: a decade of experience in the mid-Atlantic. *J Pediatr Orthop*. 2016 Apr-May;36(3):323-7. doi: 10.1097/BPO.0000000000000439.

**Sarkissian EJ**, Sankar WN, Zhu X, Wu CH, Flynn JM. Radiographic Follow-up of DDH in Infants: Are X-rays Necessary After a Normalized Ultrasound? *J Pediatr Orthop*. 2015 Sep;35(6):551-5. doi: 10.1097/BPO.0000000000000326.

**Sarkissian EJ**, Sankar WS, Baldwin K, Flynn JM. Is there a predilection for breech infants to demonstrate spontaneous stabilization of DDH instability? *J Pediatr Orthop*. 2014 Jul-Aug;34(5):509-13. doi: 10.1097/BPO.0000000000000134.

**Sarkissian EJ**, Flynn JM, Sankar WN. DDH follow-up after 6 months: why order X-rays later if ultrasound has normalized? *J Pediatric Orthopaedics*, 2014 Oct 20. (Epub ahead of print). Presentation at the American Academy of Pediatrics National Conference 2014 Orlando, FL; Presentation at the American Academy of Orthopaedic Surgeons Annual Meeting 2014 New Orleans, LA.

Gans I, **Sarkissian EJ**, Grant GF, Ganley TJ. Identical osteochondritis dissecans lesions of the knee in sets of monozygotic twins. *Orthopedics*, 2013 Dec;36(12):e1559-62.

**Sarkissian EJ**, Ganley TJ. Meniscal injuries and discoid lateral meniscus in adolescent athletes. In: Doral MN, Karlsson J, eds. *Sports Injuries: Prevention, Diagnosis, Treatment and Rehabilitation* (2<sup>nd</sup> ed.). Singapore: Springer. 2014.

**Sarkissian EJ**, Lawrence JT. The Knee. In: Kliegman RM, Stanton BF, St. Geme J, Schor N, eds. *Nelson Textbook of Pediatrics* (20<sup>th</sup> ed.). Philadelphia, PA: Elsevier, Inc. 2014.



**Eric Sarkissian, BS**

2012-2013

Drexel University  
College of Medicine,  
Phila., PA

**Current position:**

Orthopedic Surgery  
Resident, Stanford  
University, Stanford, CA



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Gans I**, Dormans JP, Spiegel DA, Flynn JM, Sankar WN, Campbell RM, Baldwin KD. Adjunctive vancomycin powder in pediatric spine surgery is safe. *Spine* (Phila Pa 1976). 2013 Sep 1;38(19):1703-7. doi: 10.1097/BRS.0b013e31829e05d3.

**Gans I**, Baldwin KD, Levin LS, Nance ML, Chang B, Kovach SJ 3rd, Serletti JM, Flynn JM. A Lower Extremity Musculoskeletal and Vascular Trauma Protocol in a Children's Hospital May Improve Treatment Response Times and Appropriate Microvascular Coverage. *J Orthop Trauma*. 2015 May;29(5):239-44. doi: 10.1097/BOT.0000000000000246.

**Gans I**, Bedoya MA, Ho-Fung V, Ganley TJ. Diagnostic performance of magnetic resonance imaging and pre-surgical evaluation in the assessment of traumatic intra-articular knee disorders in children and adolescents: what conditions still pose diagnostic challenges? *Pediatr Radiol*. 2015 Feb;45(2):194-202. doi: 10.1007/s00247-014-3127-5. Epub 2014 Aug 31.

**Gans I**, Babatunde O, Ganley T. Hybrid fixation of tibial eminence fractures in skeletally immature patients. *Arthroscopy Tech*. 2013 Jun 28;2(3):e237-e242.

**Gans I**, Sankar WN. The medial dye pool revisited: correlation between arthrography and MRI in closed reductions for DDH. *J Pediatr Orthop*. 2014 Dec;34(8):787-90. doi: 10.1097/BPO.0000000000000187.

**Gans I**, Flynn J, Sankar W. Abduction bracing for residual acetabular dysplasia in infantile DDH. *Journal of Pediatric Orthopaedics*. 2013 Oct-Nov;33(7):714-8.

Sarkissian EJ, **Gans I**, Gunderson MA, Flynn JM. Community-acquired staph aureus musculoskeletal infections: a decade of experience in the mid-Atlantic. *J Pediatr Orthop*. 2016 Apr-May;36(3):323-7. doi: 10.1097/BPO.0000000000000439.

**Gans I**, Baldwin K, Ganley T. Tibial eminence fractures: a review and algorithm for treatment. *Am J Sports Med*. 2013 Nov 20. *University of Pennsylvania Orthopaedic Journal*. 2013; 23: p20-23.

**Gans I**, Baldwin KD, Levin LS, Nance ML, Chang B, Kovach SJ 3rd, Serletti JM, Flynn JM. A Lower Extremity Musculoskeletal and Vascular Trauma Protocol in a Children's Hospital May Improve Treatment Response Times and Appropriate Microvascular Coverage. *J Orthop Trauma*. 2015 May;29(5):239-44. doi: 10.1097/BOT.0000000000000246.

**Gans I**, Sarkissian EJ, Grant SF, Ganley TJ. Identical osteochondritis dissecans lesions of the knee in sets of monozygotic twins. *Orthopedics*. 2013 Dec;36(12):e1559-62.



**Itai Gans, BS**  
2012-2013

Perelman School of  
Medicine at The  
University of  
Pennsylvania,  
Phila., PA

**Current position:**  
Orthopedic Surgery  
Resident, Johns Hopkins  
University, Baltimore,  
MD





# Prior Ben Fox Fellows

## Selected Publications and Presentations

Park HY, Matsumoto H, Feinberg N, Roye DP, **Kanj W**, Betz RR, Cahill PJ, Glotzbecker MP, Luhmann SJ, Garg S, Sawyer JR, Smith JT, Flynn JM, Vitale MG. The Classification for Early-onset Scoliosis (C-EOS) Correlates With the Speed of Vertical Expandable Prosthetic Titanium Rib (VEPTR) Proximal Anchor Failure. *J Pediatr Orthop*. 2015 Nov 13. [Epub ahead of print]

Ramski DE, **Kanj W**, Franklin CC, Baldwin KD, Ganley TJ. Anterior cruciate ligament tears in children and adolescents: a meta-analysis of non-operative versus operative treatment. *Am J Sports Med*. 2014 Nov;42(11):2769-76. doi: 10.1177/0363546513510889. Epub 2013 Dec 4. Review.

**Kanj W**, Gunderson MA, Carrigan RB, Sankar WN. Acute compartment syndrome of the upper extremity in children: diagnosis, management, and outcomes. *J Child Orthop*. 2013 Jun;7(3):225-33. doi: 10.1007/s11832-013-0492-9. Epub 2013

**Kanj W**, Flynn JM, Spiegel DA, Dormans JP, Baldwin KD. Vancomycin prophylaxis of surgical site infection in clean orthopedic surgery: a systematic review. *Orthopedics*. 2013 Feb 1;36(2):138-46.

Makani A, Franklin CC, **Kanj W**, Wells L. All-epiphyseal anterior cruciate ligament reconstruction using fluoroscopic imaging. *J Pediatr Orthop B*. 2013 Sep;22(5):445-9. doi: 10.1097/BPB.0b013e328362b8e5.

Ganley TJ, Sankar WS, Ramski DE, **Kanj W**. Optimal operating room setup for common pediatric orthopedic procedures. Scientific exhibit presented on behalf of the Pediatric Orthopaedic Society of North America at AAOS 2012, San Francisco, CA.

**Kanj W**, Gunderson M, Baldwin KD, Flynn JM. Intravenous vancomycin to prevent surgical site infections: impact and complications of a new prophylaxis protocol at a large pediatric spine center. Presented SRS 2012, Chicago, IL.; AAP 2012, New Orleans, LA.

**Kanj W**, Talarico J, Ganley TJ. Bilateral osteochondritis dissecans lesions in pediatric patients. Presented AAP 2012, New Orleans, LA.

### Wajdi Kanj, BS

2011-2012

UMDNJ-Robert  
Wood Johnson School  
of Medicine, New  
Brunswick, NJ

### Current position:

Orthopedic Surgery  
Resident, Harvard  
Combined  
Orthopedic Residency  
Program, Boston, MA





# Prior Ben Fox Fellows

## Selected Publications and Presentations

De Mattos CB, **Ramski DE**, Kushare IV, Angsanuntsukh C, Flynn JM. Radial Neck Fractures in Children and Adolescents: An Examination of Operative and Nonoperative Treatment and Outcomes. *J Pediatr Orthop*. 2016 Jan;36(1):6-12. doi: 10.1097/BPO.0000000000000387.

**Ramski DE**, Kanj W, Franklin CC, Baldwin KD, Ganley TJ. Anterior cruciate ligament tears in children and adolescents: a meta-analysis of non-operative versus operative treatment. *Am J Sports Med*. 2014 Nov;42(11):2769-76. doi: 10.1177/0363546513510889. Epub 2013 Dec 4. Review. Presented AAP 2012 New Orleans, LA. Received the Oded Bar-Or Award at the AAP Council on Sports Medicine and Fitness's abstract session.

**David Ramski, BS, BM**  
2011-2012

Georgetown University  
School of Medicine,  
Washington, DC

### Current position:

Orthopedic Surgery  
Resident, St. Luke's  
University Health  
Network, Bethlehem, PA

**Ramski DE**, Hennrikus HP, Bae DS, Baldwin KD, Patel N, Waters PM, Flynn JM. Pediatric monteggia fractures: a multicenter examination of treatment strategy and early clinical and radiographic results. *J Pediatr Orthop*. 2015 Mar;35(2):115-20. doi: 10.1097/BPO.0000000000000213. Presented AAP 2012 New Orleans, LA; AAOS 2013 Chicago, IL (Selected Best of AAOS 2013); POSNA 2013 Toronto, Canada.

De Mattos CB, **Ramski DE**, Horn BD. Displaced supracondylar humerus fractures in toddlers: are they different? Poster at the AAOS Annual Meeting 2013, Chicago, IL.

Ganley TJ, Sankar WS, **Ramski DE**, Kanj W. Optimal operating room setup for common pediatric orthopedic procedures. Scientific exhibit presented on behalf of the Pediatric Orthopaedic Society of North America at AAOS 2012, San Francisco, CA.

De Mattos CB, **Ramski DE**, Angsanuntsukh, C, Flynn, JM. The Good, The Bad, and The Ugly: Recognizing and Treating Pediatric Radial Neck Fractures. Poster at the AAOS Annual Meeting 2013, Chicago, IL. *Journal of Pediatric Orthopaedics*, In Press.

**Ramski, DE**, Ganley, TJ, Carey, JL. Osteochondritis dissecans of the knee: an examination of healing patterns with radiographs. Eposter at the ISAKOS Congress 2015, Lyon, France and the Pediatric Research in Sports Medicine Annual Meeting 2015, Weston, FL.



# Prior Ben Fox Fellows

## Selected Publications and Presentations

Ramski DE, Hennrikus HP, Bae DS, Baldwin KD, **Patel NM**, Waters PM, Flynn JM. Pediatric monteggia fractures: a multicenter examination of treatment strategy and early clinical and radiographic results. *J Pediatr Orthop*. 2015 Mar;35(2):115-20. Presented AAP 2012 New Orleans, LA; AAOS 2013 Chicago, IL (Selected Best of AAOS 2013); POSNA 2013 Toronto, Canada.

Beck NA, **Patel NM**, Ganley TJ. The pediatric knee: current concepts in sports medicine. *J Pediatr Orthop B*. 2014 Jan;23(1):59-66. doi: 10.1097/BPB.0b013e3283655c94.

Flynn JM, Emans JB, Smith JT, Betz RR, Deeney VF, **Patel NM**, Campbell RM. VEPTR to treat nonsyndromic congenital scoliosis: a multicenter, mid-term follow-up study. *J Pediatr Orthop*. 2013 Oct-Nov;33(7):679-84. doi: 10.1097/BPO.0b013e31829d55a2.

Lawrence JTR, **Patel NM**, Macknin J, Flynn JM, Cameron D, Wolfgruber HC, Ganley TJ. Return to competitive sports following medial epicondyle fracture in adolescent athletes: results of operative vs. non-operative treatment. *Am J Sports Med*. 2013 May;41(5):1152-7.

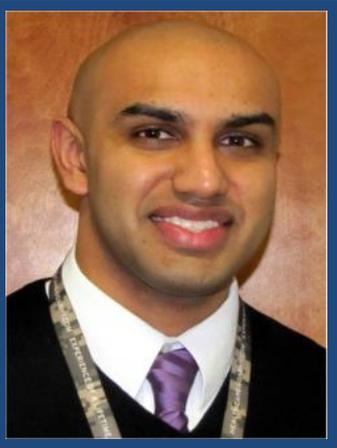
**Patel NM**, Ganley TJ. Medial epicondyle fractures of the humerus: how to evaluate and when to operate. *Pediatr Orthop*. 2012 Jun;32 Suppl 1:S10-3.

**Patel NM**, Cody SR, Ganley TJ. Symptomatic bilateral discoid menisci in children: a comparison with unilaterally symptomatic patients. *J Ped Ortho*. 2012 Jan-Feb;32(1):5-8.

**Patel NM**, Park MJ, Rendon Sampson N, Ganley TJ. Tibial eminence fractures in children: early post-treatment mobilization results in improved outcomes. *J Ped Ortho*. 2012 Mar;32(2):139-44.

Ughwanogho E, **Patel NM**, Baldwin KD, Rendon Sampson N, Flynn JM. CT-guided navigation of thoracic pedicle screws for AIS results in more accurate placement and less screw removal. *Spine*. 2012 Apr 15;37(8):E473-8. POSNA 2011, Montreal, QB; SRS 2011, Louisville, KY; AAP 2011, Boston, MA.

**Patel NM**, Flynn JM. Open reduction and internal fixation of lateral condyle fractures. In: Flatow E, ed. *Atlas of Essential Orthopaedic Procedures*. Rosemont, IL: AAOS 2013.



**Neeraj M. Patel,  
MD, MPH, MBS**

2010-2011

UMDNJ-NJ Medical  
School, Newark, NJ

**Current position:**

Orthopaedic Surgery

Fellow,

The Children's

Hospital of

Philadelphia, PA



# Prior Ben Fox Fellows

## Selected Publications and Presentations

**Beck NA**, Ganley TJ, McKay S, Tomlinson L, Ahn J, Flynn JM, Baldwin K. T-condylar fractures of the distal humerus in children: does early motion affect final range of motion? *J Child Orthop*. 2014 Mar;8(2):161-5.

Ruzbarsky JJ, **Beck NA**, Baldwin KD, Sankar WN, Flynn JM, Spiegel DA. Risk factors and complications in hip reconstruction for nonambulatory patients with cerebral palsy. *J Child Orthop*. 2013 Dec;7(6):487-500. Epub 2013 Oct 15.

**Beck NA**, Patel NM, Ganley TJ. The pediatric knee: current concepts in sports medicine. *J Pediatr Orthop B*. 2014 Jan;23(1):59-66. doi: 10.1097/BPB.0b013e3283655c94.

**Beck NA**, Miller R, Baldwin K, Zhu X, Spiegel D, Drummond D, Sankar WN, Flynn JM. Do oblique views add value in the diagnosis of spondylolysis in adolescents?. *J Bone Joint Surg Am*. 2013 May 15;95(10):e651-7. E-poster SRS, Louisville KY 2011. E-poster IMAST 2011.

Sankar WN, **Beck NA**, Brewer JM, Baldwin KD, Pretell JA. Isolated distal radial metaphyseal fractures with an intact ulna: risk factors for loss of reduction. *J Child Orthop*. 2011 Dec;5(6):459-64. Podium presentation at POSNA 2011, Montreal, Canada. E-poster, the EPOS Annual Meeting, 2011 Basel, Switzerland.

Miller RA, **Beck NA**, Sampson NR, Zhu X, Flynn JM, Drummond, D. Imaging modalities for low back pain in children: a review of spondylolysis and undiagnosed mechanical back pain. *J Pediatr Orthop*. 2013 Apr-May;33(3):282-8.

Pretell JA, **Beck NA**, Brewer JM, Baldwin KD, Sankar WN, Flynn JM. Distal metaphyseal radius fractures in children: can loss of reduction be predicted? *Int Orthop*. 2012 Jul;36(7):1435-40. Podium presentation at the SICOT Annual Meeting 2011, Prague, Czech Republic.

**Beck NA**, Ganley TJ. Pediatric ACL injuries: challenges and solutions from prevention to operative reconstruction.” *University of Pennsylvania Orthopaedic Journal* 2011.

Milewski MD, **Beck NA**, Lawrence JT, Ganley TJ. Anterior cruciate ligament reconstruction in the young athlete: a treatment algorithm for the skeletally immature. *Clin Sports Med*. 2011 Oct;30(4):801-10.



**Nicholas A. Beck,  
MD**

2010-2011  
University Of  
Pennsylvania School  
of Medicine,  
Phila., PA



# Prior Ben Fox Fellows

## Selected Publications and Presentations

Beck NA, **Miller R**, Baldwin K, Zhu X, Spiegel D, Drummond D, Sankar WN, Flynn JM. Do oblique views add value in the diagnosis of spondylolysis in adolescents?. *J Bone Joint Surg Am.* 2013 May 15;95(10):e651-7. E-poster SRS, Louisville KY 2011. E-poster IMAST 2011.

**Miller RA**, Beck NA, Sampson NR, Zhu X, Flynn JM, Drummond, D. Imaging modalities for low back pain in children: a review of spondylolysis and undiagnosed mechanical back pain. *J Pediatr Orthop.* 2013 Apr-May;33(3):282-8.

**Miller RA**, Rendon N, Flynn J. The prevalence of defensive orthopedic imaging in the state of Pennsylvania: A prospective practice audit. *J Bone Joint Surg Am.* 2012 Feb 1;94(3):e18. Presented at AAOS Spring Meeting 2011, San Diego, CA.

**Miller RA**, Beck NA, Sampson NR, Zhu X, Flynn JM, Drummond DS. Low back pain in children: natural history and value of diagnostic radiologic studies. AAP 2011. AAOS 2012

Flynn J, **Miller RA**, Cody S, Lonner B, Marks M, Bastrom T. What is different after surgery for AIS patients who enjoy a minimal clinically important difference? Presented at AAP Fall Conference 2010, San Francisco, CA.

O'Toole P, **Miller RA**, Flynn J. Interactive gaming and traditional gaming injuries: Is the bystander the real victim? Presented at AAP Fall Conference 2010, San Francisco, CA.



**Robert A. Miller, MD**  
2009-2010  
Temple University  
School of Medicine,  
Phila., PA



# Prior Ben Fox Fellows

## Selected Publications and Presentations

Gholve PA, Flynn JM, **Garner MR**, Millis MB, Kim YJ. Predictors for secondary procedures in walking DDH. *J Ped Ortho*. 2012 Apr-May;32(3):282-9. Podium presentation, POSNA 2009, Boston, MA.

Flynn JM, Bashyal RK, Yeger-McKeever M, **Garner MR**, Launay F, Sponseller P. Acute traumatic compartment syndrome of the leg in children: diagnosis and outcome. *J Bone Joint Surg*. 2011 May;93(10):937-41.

Flynn JM, **Garner MR**, Jones KJ, Wolfgruber HC, D'Italia J, Davidson RS, Ganley TJ, Horn BD, Spiegel D, Wells L. The treatment of low-energy femoral shaft fractures: a prospective study comparing the "walking spica" with the traditional spica cast. *J Bone Joint Surg Am*. 2011 Dec 7;93(23):2196-202. Podium presentation, POSNA 2009, Boston, MA; AAP 2009, Washington D.C.

**Garner MR**, Bhat SB, Khujanazarov I, Flynn JM, Spiegel D. Fixation of length-stable femoral shaft fracture in heavier children: flexible nails vs. rigid locked nails. *J Pediatr Orthop*. 2011 Jan-Feb;31(1):11-6. doi: 10.1097/BPO.0b013e31820321ab. Podium presentation, AAP 2009, Washington DC.

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**Garner MR**, Flynn JM. Closed reduction and spica casting of femur fractures. *Operative Techniques in Orthopaedic Surgery*: Lippincott Williams & Wilkins, Philadelphia, PA 2010.

Chavarria JG, **Garner MR**, Flynn JM. The operative management of medial humeral epicondyle fractures: treatment delay and extended immobilization lead to poorer functional outcomes. Podium presentation, POSNA 2009, Boston, MA.

Flynn J, **Garner MR**, Cody S, Bastrom T, Newton P, Marks M, O'Brien M, Harm Study Group. Instrumenting into non-structural proximal thoracic curves may increase the risk of worsening shoulder balance. Podium presentation, SRS 2009, San Antonio, TX.



**Matthew R. Garner,  
MD**

2008-2009

University of  
Pennsylvania School  
of Medicine,  
Philadelphia, PA

**Current position:**

Trauma surgeon, Penn  
State Hershey Bone  
and Joint Institute,  
Hershey, PA



# Prior Ben Fox Fellows

## Selected Publications and Presentations

Flynn JM, Garner MR, **Jones KJ**, Wolfgruber HC, D'Italia J, Friedman JE, Davidson RS, Ganley TG, Horn BD, Spiegel D, Wells L. The treatment of low-energy femoral shaft fractures: A prospective study comparing the “walking spica” with traditional spica casting. *J Bone Joint Surg Am.* 2011 Dec 7;93(23):2196-202. AAP 2009, Washington, DC; POSNA 2009, Boston, MA.

Flynn JM, **Jones KJ**, Garner MR, Goebel J. Eleven years experience in the operative management of pediatric forearm fractures. *J Pediatr Orthop.* 2010; 30(4):313-9.

**Jones KJ**, Wiesel BB, Sankar WN, Ganley TJ. Arthroscopic management of capitellar OCD: Mid-term results in adolescent athletes. *J Pediatr Orthop.* 2010; 30(1):8-13. AAOS 2009, Las Vegas, NV; POSNA 2007, Hollywood, FL.

Auerbach JD, **Jones KJ**, Milby AH, Anakwenze OA, Balderston RA. Segmental contribution towards total lumbar range of motion in disc replacement and fusions: A comparison of operative and adjacent levels. *Spine.* 2009; 34(23):2510-17. NASS 2007, Austin, TX; ISSLS 2007, Hong Kong, China; Spine Arthroplasty Society 2007, Berlin, Germany.

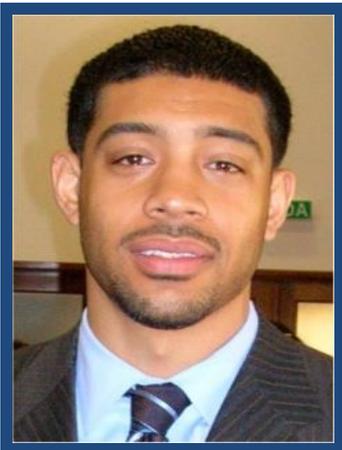
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Hosalkar H, **Jones KJ**, King JJ, Lackman RD. Serial arterial embolization for large sacral giant-cell tumors: Mid- to long-term results. *Spine.* 2007; 32(10): 1107-15.

**Jones KJ**, Wiesel B, Ganley TJ, Wells L. Functional outcomes of early arthroscopic Bankart repair in adolescents aged 11-18 years. *J Pediatr Orthop.* 2007; 27(2): 209-13. AAOS 2007, San Diego, CA; POSNA 2006, San Diego, CA.

Ganley TJ, Gaugler RL, Kocher MS, Flynn JM, **Jones KJ**. Osteochondritis Dissecans of the knee. Operative Techniques in Sports Medicine. 2006; 14(3): 147-158.



**Kristofer J. Jones, MD**

2007-2008

University of Pennsylvania  
School of Medicine,  
Philadelphia, PA,



# Ben Fox Activities



2009-2010 Ben Fox Fellow, Nicholas Beck and Dr. Ganley at a Philadelphia Eagles game



2011-2012 Ben Fox Fellows with Dr. Flynn, Dr. Ganley, and Sharon Farrell, MSN, CRNP, at the end of the year Fellows Dinner at Citizens Bank Park



2012-2013 Ben Fox Fellows and International Research Fellows in Orlando, Florida for the 2012 IPOS Meeting



2014-2015 Ben Fox Fellows with Dr. Sankar and his son Kamran at the 2014 Holiday Party



# Ben Fox Activities



2010-2011 Ben Fox Fellows with nurse practitioner Sharon Farrell at the 2010 Holiday Party



Dr. Ganley and Dr. Flynn with 2013-2014 Ben Fox Fellows, Chrissy Goodbody and Afam Nduaguba



2014-2015 Ben Fox Fellows, Joe Yellin and Alex Gornitzky, at the FDA Reviewers Pediatric Spine Course which they attended and helped coordinate



2015-2016 Ben Fox Fellows Chris Brusalis and Christian Refakis with Dr. Ganley and Clinical Research Coordinator Eileen Storey at a conference

