



Letter from the Editors

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It is with great honor and pride that we welcome you to the 29th edition of the University of Pennsylvania Orthopaedic Journal (UPOJ). The journal began in 1986 under the leadership of Dr. Carl T. Brighton as the nation's first completely resident-run journal of orthopaedic surgery, and has been a source of distinction for the department since its foundation. We are privileged to continue this tradition and would like to recognize all the contributors that have made this journal possible, including residents, surgeons, scientists, and faculty.

We are thrilled to dedicate this edition to Dr. Paul A. Lotke, an inspiration in the field of orthopaedics and a foundational member of the University of Pennsylvania Orthopaedic Department. Dr. Lotke was a talented and productive surgeon-scientist during his 50 plus years of practice, and continues to be a gifted clinician educator and an advocate for driving the future of orthopaedic practice forward.

The theme of this year's journal is inspired not only by Dr. Lotke's tremendous legacy but also by the unwavering dedication and ambition of our chairman, Dr. Levin, to constantly push the department forward and adapt in the ever-changing landscape of medicine. The editorials focus on the importance of advancing our orthopaedic knowledge by fostering our leadership skills through a new dedicated curriculum and expanding our humanitarian influence with international outreach.

We have continued this year with highlighting original scientific research through an "extended abstract" format, to allow for increased representation of both clinical and basic science work. In addition, each clinical division has provided a tips and tricks article with various surgical techniques or

unique case presentations to further encourage discussion and inquiry. We have had the honor of reviewing articles from nearly all clinical divisions and primary investigators of the Department of Orthopaedic Surgery at the University of Pennsylvania. Finally, this year's edition includes a comprehensive update on the many programs and divisions of the department including our multiple new faculty and facility additions and a spotlight on our increasing advanced practice provider workforce.

We would like to thank Dr. L. Scott Levin for his unparalleled support in the production of this journal year after year. Additionally, we would like to acknowledge the ten year anniversary of Dr. Levin's tenure as department chair. The department has consistently grown and improved in nearly every quantifiable measure under his guidance for the past ten years. Moreover, Dr. Levin has graduated 80 residents in his time as department chair, many of whom have gone on to major faculty and leadership positions of their own. As both a leader and a teacher, Dr. Levin has been changing the landscape of orthopaedics both within Penn Medicine and beyond. We are tremendously grateful for his tireless efforts, and look forward to what the next chapter of his tenure will bring.

We would also like to thank and our faculty advisors, Dr. Jaimo Ahn and Dr. Samir Mehta for their continued support and guidance in the production of this journal. As a fully resident-run publication, the UPOJ would not be possible without the contributions from our section editors: Joseph Koressel (Arthroplasty), James Friedman (Foot and Ankle), Andrew Tyler (Spine), Matthew Stein (Shoulder and Elbow), Kelsey Bonilla (Tumor), Brandon Haghverdian (Pediatrics), Agnes Dardas (Trauma), Matthew Webb (Sports), David Falk (Hand), Ivan Zapolsky (Orthoplastics), Viviana Serra Lopez (Bone), Adnan Cheema (Tendon and Ligament), and Michael Eby (Cartilage).

The UPOJ has been financially independent from the Department of Orthopaedic Surgery since 1997 thanks to the generous financial support from our advertisers. We wish to sincerely thank our sponsors, on behalf of our department, for supporting the educational and research missions of Penn Orthopaedics.

The journal is viewable for free online and all mobile devices at www.upoj.org. On behalf of all the contributors to the UPOJ this year, we hope that you find this edition educational, inspiring, and thoughtful.