



Visiting Professor Lecture Series

Guest Lecturer: Joseph Hsu



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The University of Pennsylvania Department of Orthopaedic Surgery was honored to host Dr. Joseph R. Hsu as a guest lecturer on July 28th, 2016, as part of its visiting professor lecture series. Dr. Hsu is not only a renowned surgeon and an extremely accomplished academic, with several grants from the NIH, but is also a veteran of the United States armed services.

Originally from Baton Rouge, Louisiana, Dr. Hsu went on to become an Honor Graduate from the United States Military Academy. He then completed his medical education and training at Tulane University School of Medicine and Charity Hospital in New Orleans, Louisiana, emerging as an orthopedic surgeon dually fellowship-trained in both orthopedic trauma and adult reconstruction. Finally, in pursuit of expertise in limb salvage and reconstruction, he completed fellowships in the Ilizarov Method in Lecco, Italy, and at the Kurgan Ilizarov Center in Kurgan, Russia.

In 2006, Dr. Hsu was deployed to Baghdad, Iraq, with the 10th Combat Support Hospital at Ibn Sina Hospital, where he fully utilized his expertise. He is now a part of the Carolinas Medical Center, balancing an active clinical practice with his very fruitful research pursuits. He is an investigator in the Major Extremity Trauma Consortium, as well as a member of the Orthopaedic Trauma Association, the American Orthopaedic Association, the Limb Lengthening and Reconstruction Society, and the Society of Military Orthopaedic Surgeons.

Dr. Hsu was introduced on July 28th by the Department of Orthopaedic Surgery's chairman, Dr. L. Scott Levin, who has known Dr. Hsu both personally and professionally for many years, and took the opportunity to highlight his many incredible contributions in his roles as both orthopedic surgeon, and as United States veteran. Dr. Hsu then proceeded to give two captivating lectures, entitled "The Opioid Epidemic: Leading the Solutions," and "Optimizing Outcomes in Lower Extremity Trauma."

In the former lecture, Dr. Hsu delivered a comprehensive review of the current status of the opioid epidemic, the historical use of opioid medications, and the quality literature on the efficacy and harm of utilizing these medications. He used statistics to put our opiate use in perspective, perhaps most poignantly that as five percent of the world's population, the United States consumes over 80 percent of the global supply of opiate medications. He then highlighted the development of opiate use to treat pain, alongside the progression of pain management as a medical and political issue. He pointed out some important fallacies and commonly referenced statistics used to support opiate use, and supplied quality evidence to support the use of a multimodal pain strategy that minimizes opiate use. Finally, he outlined an initiative being currently utilized by the Carolinas Healthcare System, whereby the electronic medical record alerts prescribers to patients at risk

for opiate abuse or overdose at the point of care, offering them the information to make an educated decision about whether to prescribe these high risk medications.

His second presentation focused on a unique, multi-disciplinary approach to addressing the high levels of disability and deteriorating function in patients with limb salvage for high-energy lower extremity trauma (HELET). Ten such soldiers were treated with his "Return to Run" program of rigorous physical therapy combined with an energy-storing ankle-foot orthosis, and as a result eight were able to run 2 miles without stopping. This landmark program sheds light on the importance of rehabilitation for such patients, on the pathway for return to function for patients with limb salvage, and on the possible applications for ankle-foot orthoses.

Finally, Dr. Hsu lead a literature review, featuring classic orthopaedic trauma articles presented by University of Pennsylvania orthopaedic residents, beginning with one authored by Dr. Hsu, entitled "What to Read and How to Read It." This article provided a scaffold on which to base the proceeding discussions, and gave the residents a valuable overview on how to efficiently narrow down and glean significant information from the tremendous resources available to physicians.

All in all, it was a privilege to host Dr. Joseph Hsu, and the day was one that will certainly impact the practice of orthopedic surgery at the University of Pennsylvania. Dr. Hsu is clearly dedicated to the practice of evidence-



based medicine, and leads by example in this regard, and the University of Pennsylvania can only hope for the opportunity to collaborate with him further in the future.

