



Orthoplastic Limb Salvage Division

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Orthoplastic Limb Salvage Faculty



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We started the academic year by welcoming Jean-Claude Gregoire D'Alleyrand, MD, to Penn Orthopaedics. Dr. D'Alleyrand joins us after a distinguished career in the military - having practiced at Walter Reed National Military Medical Center and Landstuhl Regional Medical Center – following orthopedic traumatology fellowship training at Shock Trauma. He has immense experience with limb salvage in the war-wounded population, deformity correction and bone transport for complex non-unions. He has quickly become a vital member of the Limb Salvage and Orthoplastic Center at Penn.

Many of the orthoplastic and limb salvage faculty continue to support the men and women of Ukraine via weekly teleconference calls, helping to assist with their in-country war wounded. Penn has also welcomed several Ukraine soldiers to Philadelphia to receive complex care for their extremity injuries and amputation care. Drs. Steve Kovach and Andrew Bauder (prior Penn plastic surgery resident) traveled to Ukraine twice in 2023 and are planning to return again in April 2024. While there, they will work out of military hospitals in Uzhhorod to provide microvascular free-flap coverage and reconstruction of mangled extremities.

The orthoplastic surgery fellowship continues to grow and attract new trainees. In May 2023 we bid farewell to Dominik Kaiser as he returned to Switzerland with his family to being practice, where he is applying the orthoplastic experience to orthopedic oncology, arthroplasty, and trauma patients. Benjamin Gundlach, MD, joined the fellowship in April 2023, having completed Orthopedic Surgery residency at The University of Michigan, followed by hand and pediatric hand fellowship at Thomas Jefferson University and The Shriners' Hospital for Children respectively. During his fellowship year, Dr. Gundlach has participated in over 80 upper and lower limb

microsurgical procedures. Peter Qi, MD, will be joining as the next orthoplastic surgery fellow in July 2024. Peter is currently a hand fellow at Wellspan in York, PA, and trained in plastic surgery at University of Toronto.

The hand transplant team has been actively working to prepare and rehearse for a hopeful bilateral hand transplant to occur in the first half of 2024. Dr. Levin and Chrissy McAndrew – among the many other vital members of the transplant team – have been working diligently to gain the support and approval for a Swiss citizen to travel to Philadelphia for the life-changing operation.

Vascularized composite allotransplantation (VCA) research at Penn also continues to progress. Previous orthoplastic fellow Alexander Govshievich's work in creating an ex-vivo limb perfusion system is now being used experimentally to perfuse limbs that have been surgically amputated. Working under Dr. Levin and Mourkioti; Dr. Gundlach and Kevin Cobbol, MS, procured the forelimbs of pigs, which were then connected to the perfusion apparatus and actively perfused for 72 hours. Muscle biopsies have demonstrated improved preservation of muscle fiber size and architecture compared to cold-storage controls. The research group is excited to take this data and apply for further NIH and/or SBIR grant funding in 2024, with an ultimate goal of creating a system that can actively perfuse limbs and allow for safe transport during transplant procurement, or to trauma centers in the case of dysvascular limb trauma.

The Penn Orthoplastic and Limb Salvage Surgery Center continues to grow in clinical volume and evolve in services provided with each passing year. We are very privileged to be one of the only centers in the US to provide such complex, yet unified and collaborative care with such an incredible group of staff and faculty.