



Matt Levine, MD, PhD

Matthew Levine, MD PhD, is Attending Physician in the Department of Surgery at the University of Pennsylvania and Surgical Director of the Transplant Center and Surgical Director of Kidney Transplantation at the Children's Hospital of Philadelphia. His doctoral work was performed in the laboratory of Charles Janeway Jr. in immunobiology at Yale University. Clinically, he is a liver, kidney, and pancreas transplant surgeon in both adults and pediatric patients. He is a member many transplant, liver and kidney academic societies and serves as co-chair of the American Transplant Congress in 2022. He is the transplant liaison for the limb transplant programs at Penn in adults and children and he helped to facilitate the first successful limb transplant in a child. He serves on the editorial boards of the American Journal of Transplantation and Liver Transplantation. He is the PI on basic science projects spanning three broad areas of related interest in transplantation. The first is the role that histone/protein acetylation and de-acetylation plays in the tolerance of ischemia reperfusion injury (IRI), predominantly in kidney and liver models. NIH/NIDDK has supported this work performed in collaboration with the laboratory of Wayne Hancock at the Children's Hospital of Philadelphia. The second area of research focuses on gender-specific hormonal effects IRI and the specific impact of estrogen on mitigation of renal ischemic injury. This work has been featured in JCI in 2016 and has resulted in a phase 1/early phase 2 human clinical interventional trial testing the impact of perioperative estrogen in preserving early renal allograft function. The third broad aspect of scientific inquiry has focused on vascularized composite tissue allotransplantation (limb transplant) models in mice with a focus on tolerance induction. Overall, his focus is on scientific inquiry with significant translatable potential in human transplantation.