LUNG TRANSPLANT PROGRAM

DR. MICHAEL MULLIGAN, PROFESSOR & CHIEF DIVISION OF CARDIOTHORACIC SURGERY



Dr. Michael Mulligan

t may be surprising to learn that the person who completed his 1,000th lung transplant on July 7, 2019, did not always set out to be a transplant surgeon. In fact, Dr. Michael Mulligan, Professor & Chief, Cardiothoracic Surgery, thought he would be a family care provider in Vermont, where he would spend his days skiing and seeing patients. But life had other plans, and during a medical school anatomy class, Dr. Mulligan's mentors saw a special talent and directed him to

the field of surgery. With a strength in research and an interest in thoracic surgery, transplant became a natural fit. Upon graduation, Dr. Mulligan received several high-profile job offers, but elected to come to the University of Washington (UW) where academic medicine and a promising lung transplant program would give him the opportunity to build a clinical and research program of his own.

And build a program he did. Prior to his arrival, the UW did approximately 12 lung transplants a year. Now, UW Medicine is home to the only lung transplant program in the Northwest. Serving five states – Washington, Alaska, Idaho, Montana and Oregon – it has one of the highest volumes and some of best outcomes in the United States. Of the 60 transplants completed annually, Dr. Mulligan does approximately 57 or 58. He is always on call, and has "spent many a night in a van being retrieved from the snowy northwest, picked up from airstrips when on vacation, airlifted from the base of Mt. Rainier, and was almost shot down by a fighter jet on 9/11" – all to get back in time for a transplant. In fact, for the first 10 years, Dr. Mulligan would be retrieved from anywhere in the continental US if lungs were available for transplant.

Having been immersed in the lung transplant process from donor to recipient operation for over two decades, coupled with his extensive bench research on primary graft disfunction, Dr. Mulligan has witnessed firsthand longitudinal results about what makes a lung transplantation successful. In fact, he has garnered so much knowledge that he wrote the consensus opinion for the International Society of Heart and Lung Transplantation on maximizing the use of donated organs. This document describes "how to evaluate organs in the field using a system of prescribed behaviors and maneuvers to see whether things are safe - essentially an instruction manual on how to do this in the field and what the numbers mean so this is exportable and transferrable knowledge." Says Dr. Mulligan, "I've always been very self-critical, so I've learned to identify organs that can be salvaged or may have been a bit marginal but function very well." These learnings have become even more important in the last two years as COVID-19 ravaged lungs and caused acute respiratory distress syndrome, greatly increasing the demand and urgency for lung transplantation.

Dr. Mulligan's breadth of experience has also led to research and clinical advancements including the newly announced clinical trials in lung transplantation. This project will be "composed of seven multicenter pods with three institutions in each, so 21 transplant programs represented that will be part of the National Lung Transplant Research Consortium that will capture more than half of the lung transplants done in North America, and it will be a think tank with five years of funding that will lead to a clinical trials network that will be without precedence." Dr. Mulligan lobbied for eight years to get project funding, and says of his success, "This will be one of my bigger legacy pieces having fought for so long to get it established and to actually see it happen before I retire has been very gratifying."

Dr. Mulligan's years of hard work have made the UW Medicine lung transplant program what it is today, and he says it is the community that has kept him here for so long. With over 1,100 transplanted patients, it is not uncommon for him to go anywhere without bumping into a former patient or their grateful family members, an experience that was hugely impactful for his two young sons. Dr. Mulligan wants to continue to do as much good as possible and work now aims to "revitalize the ex vivo lung perfusion program so no one dies in our community needing a lung transplant." Says Dr. Mulligan, "I want to do all, but it's important to teach others so the program can live on for the decades to come."



Dr. Mulligan in his research lab.



If you are interested in learning how you can support lung transplant, please click here or email Jeannie Stuyvesant, senior director for philanthropy, at jstuy@uw.edu.