



Office of Faculty Development

Pathology & Immunology

Dr. Scott Handley grew up in Lee's Summit, MO just outside of Kansas City. Scott was the youngest of three and has an older brother who currently lives in Dallas while his sister is still living in Lee's Summit near his mother and father. He is an uncle to one nephew and 4 nieces all currently pursuing their undergraduate degrees around the country.



Scott began his scientific career as an undergraduate at Southwest Missouri State University (now simply Missouri State) where he graduated with a Bachelors of Science in 1998. During this time, he pursued an undergraduate research project analyzing the lipids in psychrophilic (cold loving) bacteria isolated from Antarctic ice sheets and became avidly interested in all things related to microbiology. Scott was fortunate enough to secure a pre-doctoral fellowship at the

Centers for Disease Control and Prevention (CDC) in Atlanta, GA. Scott worked in the Viral & Rickettsial Zoonoses Branch helping to develop new molecular techniques to identify and differentiate various bacterial and Rickettsial pathogens. Through this work he was invited to work with Dr. Siv Andersson at Upsalla University in Sweden where he worked on some very early bacterial genomics projects designed to better understand the minimum genetic requirements of life.

Following his two years at the CDC and Upsalla University Scott was accepted to the PhD program at Washington University in the Department of Molecular Microbiology and Microbial Pathogenesis where he pursued his PhD work in the laboratory of Dr. Virginia Miller. In Dr. Miller's lab Scott worked primarily on mouse models of Salmonella and Yersinia pathogenesis. During this time Scott worked with some early microarray technology and became interested in the emergence of computational biology and bioinformatics. Following graduation, he pursued independent training in computation biology while working as a program manager for the Midwest Regional Center of Excellence for Biodefence and Emerging Infectious Diseases Research (MRCE). For several years Scott attended bioinformatics workshops and seminars and began working with Dr. Herbert "Skip" Virgin on several microbiome related projects. These projects turned into grants and publications and Scott was able to pursue bioinformatics full-time in Dr. Virgin's lab. Scott continues to pursue this work as a faculty member of the Department of Pathology and Immunology where his lab uses computational tools to investigate viruses and bacteria of the gastrointestinal and female genital tract and how they contribute to health and disease in a variety of diseases.

Scott gained a great appreciation for scientific training events. He was able to re-invent himself from a mouse immunologist into a computational biologist by participating in such events. Starting in 2007 Scott began organizing his own scientific Workshops, first at the Centers for Disease Control and the Smithsonian Institution in Washington D.C., but rapidly moving to organizing international events in the Czech Republic, South Africa and Colombia. In total these events have trained over 2,000 students from around the world on how to perform various



computational techniques (genomics, evolution, population genetics, etc.). Unfortunately, the COVID-19 pandemic has made organizing these events impossible, but Scott and his colleagues are enthusiastic about returning in 2022.



Scott has two sons, Connor (13) and Hugh (11) who he enjoys hiking, playing video and board games and travelling. They are the true joys of his life and he appreciates every moment he has with them as they continue to grow and mature into independent young men. The three of them live in a house west of the city where Scott enjoys gardening and spending time working on projects around his house.