

Megan Stanifer received her bachelor's degree with a major in chemistry and a minor in biology in 2003 from Boston University, Boston, MA, USA. During her bachelor's studies she performed her bachelor thesis in physical chemistry where she studied the "sweating space shuttle effect". From 2001-2003 in addition to her research, she also worked in a doctor's office which furthered her interest in infectious diseases and their underlying mechanisms which inspired her to pursue a PhD in molecular virology.

Megan completed her PhD in 2009 from the lab of Water Atwood in the Department of Molecular Biology, Biochemistry and Cell Biology from Brown University, Providence, RI, USA. During her PhD studies, Megan investigated the human polyomaviruses JC and BK. Her work uncovered both viral and cellular factors that were key to promote JC virus replication. She additionally collaborated with another graduate student to understand how BK virus binds and enters human kidney cells to initiate its lifecycle. To support her graduate work, Megan applied for and was awarded the highly competitive pre-doctoral fellowship program from the National Institute of Health (NIH), USA

Following her PhD, Megan performed a first post-doctoral training in the lab of Sean Whelan at Harvard Medical School, Boston, MA, USA. During her time at Harvard, she investigated how Vesicular Stomatitis Virus (VSV) enters and fuses with endocytic membranes to initiate its lifecycle. Megan was again able to support her work by receiving two highly competitive NIH post-doctoral fellowships.

In 2012, Megan moved to Heidelberg, Germany when her husband became a junior group leader in the department of Infectious Diseases. Megan then started her second post-doc focusing on understanding how the intrinsic innate immune response is regulated in the human gut. During this time Megan unraveled novel mechanisms to regulate gut homeostasis (response to pathogens vs. tolerance of commensal flora) by establishing both human and murine intestinal organoids in the lab. Megan was able to support her work in the lab by receiving three post-doctoral fellowship awards and a personal DFG grant.

In early 2020, Megan saw that patients in China were exhibiting gastrointestinal symptoms following infection by SARS-CoV-2. Using the technology she had developed to investigate enteric pathogens infecting the human gut, she was able to quickly jump into SARS-CoV-2 research at the onset of the pandemic. Due to this, she was able to establish several national and international collaborations to investigate how SARS-CoV-2 replicates in the human gut and to unravel novel therapeutic approaches to combat virus infection. In the last two years, Megan became a leading figure in Germany for the global fight against the pandemic. She has published in the last two years XXXX manuscripts in top ranked scientific journals (Including XX and XXX). Additionally, she was awarded a BMBF grant to support her SARS-CoV-2 work.

In summary, throughout her 18 year scientific career, she has handled a diverse array of BSL2 and BSL3 pathogens including both enveloped and non-enveloped viruses with DNA and RNA genomes. Her work on these viruses ranged from investigating pathogen-host interactions from viral entry to antiviral innate immune modulation and resulted in the development of state-of-the art microscopy and genomics approaches to tackle these questions. This work has resulted in 50 publications, including several high impact papers as

both first and last author. Importantly, Megan was able to achieve all of this while also having two children.