

# Shannon Manning

**MSU Foundation Associate Professor at Michigan State University**

East Lansing, MI, US

Expert in Microbial Pathogenesis and Molecular Epidemiology

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## Biography

My laboratory studies the molecular epidemiology and evolutionary genetics of infectious diseases, namely those caused by diarrheagenic *Escherichia coli* and *Streptococcus agalactiae*. We apply molecular biology, epidemiological and evolutionary methods to answer questions about pathogenesis, emergence, virulence, evolution, and transmission of pathogens in human and animal populations. Our studies of both Shiga toxin-producing *E. coli* (STEC) O157:H7 and *S. agalactiae* are similar in that the phylogenetic analysis of genomic data and the subsequent epidemiological analysis identified specific strain types to be more important for disease. Most of our current and future research projects are associated with these key findings that will ultimately enhance our understanding of how genetic variation contributes to clinical illness. We also manage and curate the STEC Center, which serves as a repository for STEC and other enteric pathogens.

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## Industry Expertise

Education/Learning, Laboratory Services, Research, Biotechnology

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## Areas of Expertise

Coronavirus, Molecular Epidemiology, Microbiology, *Escherichia coli*, Group B *Streptococcus*, Public Health, Neonatal Infections, Diarrheal Disease, Microbial Evolution, COVID-19

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## Education

**University of Michigan**

Ph.D. Molecular Epidemiology

**University of Michigan**

M.P.H. Hospital and Molecular Epidemiology

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