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Clostridioides difficile infection (CDI) is the leading cause of hospital-acquired and antibiotic-associated intestinal infections. However, we do not currently have a clear understanding of CDI pathogenesis, which impedes the development of additional therapeutic strategies. Dr. Martin Douglass will investigate how CDI overcomes the human microbiota and immune system in <u>Dr. Eric Skaar's lab</u> at Vanderbilt University Medical Center. Dr. Douglass will examine how CDI competes for nutrients with the microbiota and immune system. Furthermore, Dr. Douglass will identify which CD genes are required for host colonization and persistence. These studies may provide insight into novel therapeutic targets for treating CDI.

As a graduate student in <u>Dr. M. Stephen Trent's lab</u> at the University of Georgia, Douglass examined the outer membrane of Gram-negative bacteria. Dr. Douglass discovered <u>novel proteins that are required for the transport of</u> <u>lipids to the outer membrane</u>. These studies provide potential therapeutic targets for novel antibiotics and provide Douglass with a solid foundation for interrogating new targets in CDI.

