

# **Metabolic Interactions and Capabilities within Microbial Communities**

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A Dissertation

Presented to  
the faculty of the School of Engineering and Applied Science  
University of Virginia

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in partial fulfillment  
of the requirements for the degree

Doctor of Philosophy

by

Gregory Leonard Medlock

May 2019

# APPROVAL SHEET

This Dissertation  
is submitted in partial fulfillment of the requirements  
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