

Public Abstract

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Title:MICROBIOTA MODULATION OF BEHAVIOR AND STRESS RESPONSES:IMPLICATIONS FOR NEURO-IMMUNE RESEARCH IN ZEBRAFISH

Microbes that live inside of our body are essential for survival. These microbes are known to influence digestive and immune health, however, the role they play in psychological health is not well understood. Furthermore, the ability to study the communication between microbes and the brain is limited due to the complexity of their interactions. This dissertation research demonstrates the ability gut microbes have to alter behavior and stress-related responses. This research also sets the foundation for studying complex microbe-brain interactions in zebrafish, which allows for faster and easier testing of microbes that may affect psychological health. By understanding how microbes influence brain function and behavior, it opens up the possibility for using probiotic therapeutics targeting neurological disorders.