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Lindsay Joy Spielman, Deanna Lynn Gibson, Andis Klegeris

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#### ACCEPTED MANUSCRIPT

# Unhealthy gut, unhealthy brain: The role of the intestinal microbiota in neurodegenerative diseases

Lindsay Joy Spielman<sup>a,\*</sup>, Deanna Lynn Gibson<sup>b</sup>, Andis Klegeris<sup>b</sup>

\* Corresponding author. Department of Biology, Alexander College, Burnaby, BC, V5H 4M4, Canada. E-mail address: <a href="mailto:lindsayspielman@live.ca">lindsayspielman@live.ca</a> (L.J. Spielman)

#### **Highlights**

- Diverse and stable human intestinal microbiota are associated with brain health
- Intestinal microbiota regulate neuroimmune responses in the central nervous system
- Gut bacteria communicate with the brain via the vagus nerve and circulatory system
- Microbial dysbiosis increase the risk of developing neurodegenerative diseases
- Microbial dysbiosis may cause adverse neuroinflammation in neurodegenerative diseases

<sup>&</sup>lt;sup>a</sup> Department of Biology, Alexander College, Vancouver, BC, Canada

<sup>&</sup>lt;sup>b</sup> Department of Biology, University of British Columbia Okanagan Campus, Kelowna, Canada

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