



# Dr Georges MOUTON MD

Functional Medicine

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Title

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## INTRODUCING THE NEW CONCEPT OF "NEUROMICROBIOLOGY"

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### Neuromicrobiology: How Microbes Influence the Brain.

de la Fuente-Núñez C<sup>1,2,3,4,5</sup>, Menequetti BT<sup>6</sup>, Franco OL<sup>6,7</sup>, Lu TK<sup>1,2,3,4,5</sup>.

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#### Abstract

We review here recent discoveries in the exciting new field of neuromicrobiology. This field encompasses the interactions between the microbiome and the central nervous system. The microbiome has a tremendous impact on human health. In particular, the gut microbiota may play a key role in many essential processes in health and disease via the activity of the gut-brain axis, possibly contributing to autism spectrum disorders, Alzheimer's disease, Parkinson's disease, depression, and anxiety disorder. Gut microbes may also be involved in nociception, complex host behaviors, and brain development. Future efforts will be needed to determine whether the observed associations correspond to causative mechanisms, as well as to engineer effective interventions to modulate the effects of the microbiome on the central nervous system.

**KEYWORDS:** Neuromicrobiology; gut microbiota; neurological disorders

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*"We review here recent discoveries in the exciting new field of **neuromicrobiology**. This field encompasses the interactions between the microbiome and the central nervous system. **The microbiome has a tremendous impact on human health**. In particular the gut microbiota may play a key role in many essential processes in health and disease via the activity of the **gut-brain axis**, possibly contributing to autism spectrum disorders, Alzheimer's disease, Parkinson's disease, depression, and anxiety disorder. Gut microbes may also be involved in nociception, complex host behaviours, and brain development."*