Microbiome definition re-visited: old concepts and new challenges

Gabriele Berg
Daria Rybakova
Doreen Fischer
Tomislav Cernava
Marie-Christine Champomier Vergès
Trevor Charles
Xiaoyulong Chen
Luca Cocolin
Kellye Eversole
Gema Herrero Corral
Maria Kazou
Linda Kinkel
Lene Lange
Nelson Lima
Alexander Loy
James A. Macklin
Emmanuelle Maguin
Tim Mauchline
Ryan McClure
Birgit Mitter
Matthew Ryan
Inga Sarand
Hauke Smidt
Bettina Schelkle
Hugo Roume
G. Seghal Kiran
Joseph Selvin
Rafael Soares Correa de Souza
Leo van Overbeek
Brajesh K. Singh
Michael Wagner
Aaron Walsh
Angela Sessitsch
Michael Schloter

Video Byte

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Abstract

Microbiome research has consistently been placed in the spotlight over the past two decades, and has shown tremendous promise in the fields of medicine, environmental science, food production, and agriculture. Life on Earth does not exist without microbes, and we may benefit from learning more about them. Yet, there is no common understanding amongst researchers of what a 'microbiome' actually is. Researchers are now proposing a common definition of 'microbiome' to ensure better, more robust research across different disciplines. The authors build on the historical definition offered by Whipps and colleagues in 1988 using new research insights. Additionally, they highlight the importance of microbiomes as drivers for the health of many eukaryotic hosts, including humans and plants. The proposed amendments to the definition specify the elements of microbiome composition and their interactions. This revised definition was developed with input gathered during a workshop hosted by the EU-funded project MicrobiomeSupport in March 2019, and an online survey including more than 100 experts from around the world.