animalcules: Interactive microbiome analytics and visualization in R

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Video Byte

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Abstract

The human body is home to numerous communities of microorganisms. While advances in genetic sequencing have enabled researchers to understand how these communities influence health and disease, these technologies are also creating more data than researchers can handle. Now, there's animalcules. animalcules is an easy-to-use interactive toolkit for analyzing and visualizing microbiome data. Using a combination of new and existing analytics, visualization methods, and machine learning models, animalcules allows for traditional microbiome analyses, such as alpha and beta diversity and differential abundance analyses, and biomarker identification. The toolkit also generates interactive and dynamic figures that enables users to understand their data and gain new insights. animalcules can be used as a standalone command-line R package, or users can explore their data with the accompanying interactive R Shiny interface. animalcules is free to download from GitHub at <https://github.com/compbio/animalcules> or can be installed through Bioconductor at <https://www.bioconductor.org/packages/release/bioc/html/animalcules.html>.