

NIH launches first phase of microbiome cloud project

September 26 2013

The National Institutes of Health (NIH) has launched the first phase of the Microbiome Cloud Project (MCP), a collaboration with Amazon Web Services that aims to improve access to and analysis of data from the <u>Human Microbiome Project (HMP)</u>. Five terabytes of genetic information on the microbes that naturally colonize our bodies—enough information to fill more than 1,000 standard DVDs—are now available as a <u>free public dataset</u>, allowing users to access and analyze the data online. This cloud, or internet-based, storage facilitates analysis by reducing the need for time-consuming downloads.

Mining HMP data promises to help researchers understand the role of the microbiota in health and disease and uncover new targets for drugs and vaccines. However, exploration of such large, complex datasets can be challenging for scientists who do not have the necessary computing infrastructure, analysis tools or technical expertise. To help researchers overcome these obstacles, the NIH's National Institute of Allergy and Infectious Diseases (NIAID) and National Human Genome Research Institute (NHGRI) assembled a team of experts from academia and industry to develop the MCP. NIH-funded scientist Owen White, Ph.D., and his colleagues at the University of Maryland School of Medicine led the first phase of the project.

The team currently is developing the next phase of the MCP, which will add more datasets, analysis tools and supporting documentation. By bringing together data and tools in the cloud, this initiative promises to encourage greater scientific collaboration and inform NIH best practices



for using cloud technologies for biomedical research.

Provided by NIH/National Institute of Allergy and Infectious Diseases

Citation: NIH launches first phase of microbiome cloud project (2013, September 26) retrieved 2 May 2024 from <u>https://medicalxpress.com/news/2013-09-nih-phase-microbiome-cloud.html</u>

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