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GAIA: INTEGRATED METAGENOMICS SUITE

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Identifying the biological diversity of a microbial population is of fundamental importance due to its implications in industrial processes, environmental studies and clinical applications. In plants specifically, microbial communities affect the growth and health as well as the productivity of crops. Today, there is still an outstanding need to develop new, easy-to-use bioinformatics tools to analyze both shotgun and targeted metagenomics with the highest accuracy and the lowest running time. With the aim of overcoming this need, we introduce you to GAIA, an online SaaS solution that has been designed to give you the maximum information on your sample whatever you perform: 16/18S, virome or shotgun analysis. GAIA is able to obtain a comprehensive and detailed overview at any taxonomic level of microbiomes of different origins: human (e.g. stomach or skin), agricultural and environmental (e.g. land, water or organic waste). A recent publication has benchmarked current 16/18S pipelines to analyze metagenomics data (Siegwald, et al. 2017). Using the same datasets Siegwald, et al. used, our results show GAIA's accuracy is above the most commonly-used pipelines today, such as QIIME, Kraken, KLARK, or One Codex. The overall objective of GAIA is to provide academia and industries with an integrated metagenomics suite that will allow to perform metagenomics data analysis easily, quickly and affordably.