

REMNet Online Resources Transcript

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Hello. My name is Jimiane Ashe, and I am one of the many researchers of the City University of New York associated with the Research Experiences in Microbiomes Network (or REMNet) funded by the National Science Foundation and the New York State Open Educational Resources Initiative.

We have designed a series of online tutorials to guide you through data analysis associated with microbiome data and the Authentic Research Experience in Microbiology (or AREM) microbiome project.

Our goal is to guide faculty and undergraduate students through a data analysis pipeline that produces a useful, comparable and potentially publishable presentation of microbiome data generated in your classroom or research laboratory.

We have chosen Excel as the workhorse for data analysis and visualization because

- almost everyone has access to Excel,
- there are numerous free training resources available (in addition to the ones we have made),
- and proficiency using Excel is valuable in many other courses and professions

We have created a 6-part Excel analysis series demonstrating

- an overview of the raw data produced by high throughput next generation 16S microbiome sequencing,
- the best way to open your data files,
- tools, functions and formulas to organize your raw data,
- and the tools to visualize your data in the form of tables, heat maps and graphs using standards found in published microbiome research.

For more advance users, we have also created a 5-part analysis series in the R software environment demonstrating

- how to import your raw data
- how to install packages to carry out analyses
- commands for statistical analyses
- and how to visualize your data in different types of graphs

We invite you to explore our online resources, and we hope that you and your undergraduate students find them valuable tools to interpret and communicate your microbiome data to the scientific community.

On behalf of REMNet, thank you for your interest.