

CSIR NextGen Health launches the CSIR Microbiome Mapping Initiative – and you can help!

The CSIR's NextGen Health cluster is piloting the CSIR Microbiome Mapping Initiative to set up the infrastructure necessary to establish a national microbiome profiling platform.

CSIR project leader Dr Jerolen Naidoo says, "This project will involve capturing a snapshot of gut microbial diversity to characterise the baseline profile in the average South African community as represented at the CSIR.

"The microbiome refers to all the genetic material of the community of 10 to 100 trillion microorganisms living inside your gut! This community is really important in several fundamental bodily processes and is influenced by diet, lifestyle, genetics and more that we aim to uncover with your help!"

Why is this study so important?

"In 2019, South Africa was named the world's unhealthiest country according to the Indigo Wellness Index. This may reflect the epidemiological transition to a more urbanised society, which has major implications in the development of various pathologies, such as diabetes and cancer, due to simultaneous increases in sedentary lifestyles and changes in dietary habits," Jerolen says.

"An imbalanced microbiome (i.e. dysbiosis) has been shown to influence therapeutic outcomes in cancer treatment and susceptibility to infectious disease such as HIV/Aids and tuberculosis. Further investigation would aid in understanding how these changes in healthy gut microbiome profiles in the South African population affect health and reveal future significant implications in personalised medicine," he adds.

The success of this project depends on your help

"By providing a small stool sample, you will be giving us access to this vast community of microorganisms. We will link this gut community profile to the information you provide us through a questionnaire about your diet, demographics and lifestyle, and generate a report about the profile and potential links to these factors," Jerolen says.

Participants will receive a detailed report about their microbiome profile after the completion of the study.

Your safety and that of your information is our priority

In compliance with health and safety requirements, the kits used for the stool samples have a stabilisation buffer, which destroys potential viruses and pathogens in stool samples.

The project has been approved by the CSIR Research Ethics Committee. Since this research includes human participants and the environment, it was important for the researchers to get ethics approval prior to commencement to ensure that applicable [research] ethics codes, guidelines, quality, standards and norms are adhered to.

The accompanying privacy statement is an undertaking by the researchers to make sure that information collected during this study is processed and stored in a responsible manner. Where your information must be shared, this will only be done with your consent. This is in line with the Protection of Personal Information Act, 2013 (Act 4 of 2013).