

## **5<sup>TH</sup> NUTRITION WINTER SCHOOL 2018 ‘Breaking Barriers: Gut, Brain, Bugs-and beyond’**

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The above school began on 22<sup>nd</sup> to 26<sup>th</sup> January 2018 at Levi, Finland. This is organized in the land of snow and darkness during the polar night, under the Aurora borealis in Finland. This school takes place every after two years as a winter school. This year’s theme was on **‘Breaking Barriers: Gut, Brain, Bugs-and beyond’**.

The focus was on the gut –brain axis integrating it with both basic and clinical research. The forum aimed at expanding researcher’s way of thinking, breaking barriers relating to Gut-brain studies.

The school strongly focused on novel methods to study Central Nervous System and Enteral Nervous System such as stem cells and gut microbiota as research tools, measuring of cell metabolism in real-time with the Agilent Seahorse XF technology and measuring intestinal permeability.

Gut- brain axis was a cross cutting theme in all 8 sessions presented. Highly qualified and experienced researchers in this field of Gut- Brain axis were the keynote speakers. The presentations widely covered the Gut- Brain concepts and provided clinical evidences in this field. They also opened hot topics for future studies in nutrition and Gut microbiota research studies.

This school had daily outdoor experience activities like Guided tour in Husky Park, Ice Karting Reindeer ride in Lappi Village, snowmobile safaris, snowshoeing and cross-country and downhill skiing. There was also a Lappish Winter Olympics Games, Tour de Levi; Lappish dinner at Restaurant Kammi, Closing dinner with Sami music and food as well as Nutrition Winter School After Ski activities.

The school had wonderful dinner every day at Levi Hotel and also attended the evening program organized by sponsors of the school. The school was with good number of participants which made it so easy to interact and network for future studies and research projects. The group organizers and session leaders were enthusiastic and engaging. Participant’s presentations were well arranged and received good analytical criticisms aimed at improving the presented projects.

I gave an oral presentation entitled **“Nutrition, Hygiene and Stimulation Education on; Child development, gut microbiota and growth”**. The presentation focused on the Gut-Brain Axis among children in Rural Uganda which is paper that is yet to be published, and it was very useful to present it in a group of highly experienced scientists who discussed my work and provided insights for improvement as well as guidance on building up research collaboration and career.

Through this school I learnt about the direction of scientific studies towards epigenetics, stem cell niche, neuro-oncology in the gut, Fecal Microbiota Transplant as far as treatment of several diseases is concerned.

Finally , design and large data sets in dietary interventions was presented, lessons from using big data in human intervention studies using the case study of Food4Me study was presented. Prof John Mathers from Newcastle University presented novel designs of developing scalable interventions to improve health ageing that are delivered via internet.

The school was very useful for researchers interested in nutrition, Gut- brain axis, microbiota, epigenetics, cardiovascular diseases, stem cells and gut organoids. I do recommend the school to other PhD students interested in the mentioned topics and who have a clinical experience in their work. However, for other PhD candidates the topic might be too technical and complex for their interests.



**Prudence Atukunda giving an oral presentation on “Nutrition, Hygiene and Stimulation Education on; Child development, Gut Microbiota and Growth.”**