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KERKSICK PRESENTS CASE STUDY WITH CROSSFIT GAMES CHAMPION

March 23, 2023

The Director of [Exercise and Performance Nutrition Laboratory](#) at Lindenwood University, Dr. Chad Kerksick and his research team, participated in a microbiome case study of 28-year-old Australian CrossFit champion Tia-Claire Toomey. And the results were published worldwide at the 2023 IPA World Congress + Probiota event in February in Barcelona, where speakers from academia and regulators were brought together to share their insights and experiences.

Together, Kerksick and his research team collected numerous bodily samples across a 16-week period, including samples collected immediately surrounding the CrossFit games. Fitbiomics, a sports biotechnology company out of the Boston area, funded the expenses of the analysis and donated their time and expertise, Kerksick stated.

“Toomey’s athletic prowess speaks for itself,” said Dr. Kerksick, “but her commitment to our project and getting to know her as a person were the biggest highlights (of this project).”

The study involved two controls: a genetic control (Toomey’s sister) and an environmental control (another 28-year-old female who trained at the same gym). While tracking the collected samples, both similarities and differences were studied.

Toomey’s samples concluded that the bacterial communities and genes expressed all resembled more of the environmental control. The highest recordings, according to the study, were noted immediately after the competition and Toomey “consistently displayed the most diversity,” per the study.

After concluding their research, members of the research team traveled to Nashville, Tennessee and Madison, Wisconsin, for a week to present their findings. The team also presented its findings in San Diego and Barcelona.

Kerksick said this project is beneficial for several reasons.

“This is the first group of scientific data collected on any athlete competing at the CrossFit games,” he noted. “When our blood and fecal metabolomic data is published, it will be the most comprehensive set of longitudinal data of this nature published for any type of athlete.”

“Changes in our gut and the bacteria inside our gut is a relatively new area of research and studies have indicated that bacteria that resides in the guts of athletes can be different and it can change as people exercise,” explained Kerksick.