Aleksandar David Kostic, Ph. D.

Professor Kostic obtained a Bachelor of Science in Molecular Biology at the University of Toronto and a Ph.D. in Biological and Biomedical Sciences at Harvard University. He was a Posdoctoral Fellow at the Broad Institute of MIT and Harvard working in the field of Microbiology, Metabolism and Computational Biology.

His primary research interest is in the discovery and characterization of human-microbe mutualism from an evolutionary, metabolic, and immunological perspective, with a particular focus on how these mutualistic relationships can help us better understand metabolic and autoimmune disease. His scientific contributions since his first publication nine years ago, include not only discoveries of novel associations between the microbiome and human disease, but have led to new mechanistic understanding of microbiome-host interactions in colorectal cancer (CRC), diabetes, and exercise. In his new lab, composed of two postdocs and five PhD students, they take a multi-faceted approach to studying the microbiome by modeling diabetes in gnotobiotic mice, developing algorithms for multi'omic analysis, culturing diverse human symbiotic bacteria, and engineering these microbes using synthetic biology.

He has received several fellowships and awards, like the Postgraduate Fellowship of the Natural Sciences and Engineering Research Council of Canada, the Ryan Fellowship, the Sachi Nakashima Memorial Fellowship, The Lawrence H. Summers Postdoctoral Fellowship, The Merck Fellow of the Helen Hay Whitney Foundation, the Runner-up, 2019 BBS Award for Mentoring.

He is the course director for a microbiome literature course that he created, now in its third year, as well as an instructor in several other courses serving HMS graduate students in immunology, computational biology, grant writing, and research ethics.

In addition to his academic responsibilities, he is also co-founder and member of the Board of Directors of DeepBiome Therapeutics, Inc., as well as co-founder and member of the Scientific Advisory Board of FitBiomics, Inc.

His ultimate research goal is to develop new methods to diagnose and treat diabetes by deepening our understanding of the diverse functional capabilities of the symbiotic microbiota and their impact on our

metabolism and immune system.

Since 2016 he is an Assitant Investigator at the Joslin Diabetes Center and since 2017 he is an Assitant Professor of Microbiology at Harvard Medical School. In the three years since becoming an Assistant Professor, he has published four primary research papers in journals like Nature Medicine, Cell Host & Microbe, and eLife. According to Google Scholar, he has more than 13,500 citations.