Kseniya Simbirtseva, MD, PhD is a Ukrainian clinician-scientist with 18 years of medical experience, professional member of the European Society of Cardiology. She has several specialisations including internal medicine, cardiology and health care organisation.



As a former visiting scientist of Dr. Natalia Shulga, she joined her lab on a fellowship award for a clinical rotation in gastroenterology, cardiology, and nephrology at the University of Rochester School of Medicine and Dentistry, Strong Memorial Hospital, USA. During her rotation she carried out a project "Ischemiamodified albumin in acute coronary syndrome".

As a clinician-scientist, she completed by doctoral thesis entitled "Clinical and pathogenetic justification of correction of calcium disorders in treatment of patients with osteoarthritis and arterial hypertension" in 2008 and then worked at the Department of Internal Medicine in Donetsk National Medical University, Ukraine, where she continued her research work.

She joined Prof Paul O'Toole's lab at APC Microbiome Ireland in July 2022, where in collaboration with Prof Timmons she is investigating of the relevance of the microbiome in cognitive decline. The overarching

question of their joint study is whether and how gut microbiome taxa and their metabolites influence brain health. Dysbiosis of intestinal microbiota in older people is linked to a "leaky gut", which may result in silent systemic low-grade inflammation and promote neuroinflammation - a relevant pathomechanism in the aetiology/progression of neurocognitive disorders.

The study will provide new data and insights for elucidating the mechanistic processes related to neurocognitive disorders. This new knowledge might improve the prediction of the risk of dementia onset/progression or advance the development of strategies to inhibit the onset/progression of neurocognitive disorders.