Dr. Toni T. Seppälä graduated from medical school as licentiate of medicine in the University of Eastern Finland in 2010 and defended his PhD thesis on Alzheimer's disease in 2012. During surgery residency with professor Jukka-Pekka Mecklin's mentorship he became interested in cancer research.

He has worked as a colorectal surgeon since board certification in 2018, and was appointed as associate professor at Uni. Helsinki in 2019.

In 2019–2021 Dr. Seppälä underwent a research fellowship at the department of Surgical Oncology in the Johns Hopkins University and Sidney Kimmel Comprehensive Cancer Center in Baltimore, MD, USA, under supervision of pancreatic surgeons Dr. Richard Burkhart and Dr. Christopher Wolfgang.

In 2022, he was appointed as a tenure track professor of cancer research in University of Tampere and leads laboratories and a research group in Tampere and Helsinki Universities.

He serves on the boards of Directors of the European Hereditary Tumour Group, International Society for Hereditary Gastroinstestinal Cancer, and the Finnish Society of Surgery. He also has positions in the scientific committee of the Prospective Lynch Syndrome Database and several scientific advisory boards in societies and companies.

Dr. Seppälä has published over 100 articles, opinions, podcasts and interviews with >3700 citations, and raised over 2.2M euros of competed research funding.

The majority of Dr. Seppälä's research have been from the field of hereditary cancer, colorectal cancer and pancreatic cancer, and he is appreciated as an expert especially in Lynch Syndrome. His current interests in cancer research are in personalized medicine utilizing precision technologies in solid tumors, such as genomics, patient-derived organoids and cell-free DNA.