# Sirpa Jalkanen

Academician Sirpa Jalkanen is among the leading researchers of the migration mechanisms of immune cells in the world. In recognition of her scientific career, the Finnish Academy of Science and Letters awarded her the Academy Award. The award sum is 30 000 euros.

Sirpa Jalkanen graduated as a doctor from the University of Turku in 1979. Jalkanen became a researcher by happenstance: "I was never supposed to become a researcher, but fate will lead you places if you let it. Having completed his dissertation, my husband announced he was going to Stanford. My only real option was to leave my work at the children's clinic and squeeze out a dissertation to find work at Stanford. By chance, I ended up working in a laboratory where they had just discovered the first molecule that controls leukocyte trafficking in mice. This was an extremely important discovery, as leukocyte trafficking is the cornerstone of our defense mechanism." After she returned to Finland, Jalkanen decided to continue her career as a researcher, focusing on cell trafficking in terms of harmful inflammation and cancer. Jalkanen earned her doctorate in medicine and surgery in 1983.

Sirpa Jalkanen has worked as a Professor of Immunology at the University of Turku since 2007, and as an Academy Professor for three terms in 1996–2018. She has worked as the head of a Centre of Excellence of the Academy of Finland twice.

Jalkanen searches for and examines molecules that regulate the immune defense system and particularly its cell trafficking, which could be used in the development of medicines for harmful inflammations and cancers. The body's ability to fight against inflammatory disorders when the entire body is affected by inflammation as a result of the Covid-19 virus, for example, is largely dependent on the ability of the inflammatory cells to migrate to the site of inflammation. The migration of inflammatory cells is also highly significant in terms of the body's natural ability to prevent the spread of cancers. The results of the research conducted by Jalkanen and her team have revealed numerous previously unknown mechanisms that are crucial to the human inflammatory response. The results have also been

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used as the basis for the development of several new possible treatments for inflammatory disorders and cancer.

Research still remains captivating: “The excitement of the search and the thrill of discovery are the best parts. By nature, I am curious and tenacious. These are qualities that are necessary for new discoveries, which are often possible only through trial and error.”

In addition to her substantial academic achievements, Sirpa Jalkanen is also a highly active innovator, who has also been involved in setting up various listed biotech companies. During her career, Jalkanen has been awarded with several prizes and recognitions. She has, for example, received the Anders Jahre Senior Medical Prize for 2005 and the Finnish Medical Society Duodecim’s Matti Äyräpää Prize in 2008. She is also a member of the Norwegian Academy of Science and Letters and Academia Europaea. Sirpa Jalkanen was invited to join the Finnish Academy of Science and Letters in 1998, and she served as President of the Academy in 2010–2012. Jalkanen was awarded the honorary title of Academician of Science in 2015.

Jalkanen holds numerous national and international positions in both scientific organizations and foundations that fund scientific activities. She is also known as an outspoken advocate for science policy.

In addition to research, Jalkanen has contributed actively to the training of future generations of researchers and participated in the general teaching activities of the medical faculty throughout her career. “At this stage of my career, my most important role is in supporting younger researchers through all available means by utilizing my extensive networks. At present, I am the Director of the Finnish Flagship Programme InFLAMES, which aims to develop advanced immunological research further in order to improve diagnostics and develop new medicines and treatments. Well-informed and effective management of InFLAMES is very important to me at the moment”, Jalkanen says.