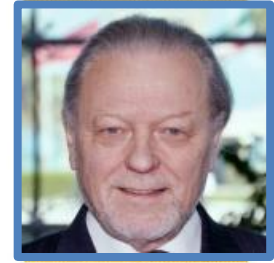


First KIA Laureate Applied Research



- ◆ **Researcher:** Prof. Jaakko Tuomilehto
- ◆ **Nationality:** Finnish
- ◆ **Date of birth:** 1946
- ◆ **Position:** Professor of Public Health
- ◆ **Scientific affiliation:** University of Helsinki, Department of Public Health, Helsinki, Finland

Project title: Epidemiology, etiology and prevention of diabetes, cardiovascular disease and dementia

Abstract: The North Karelia Project is the first community-based cardiovascular (CVD) prevention programme carried out in Finland with record-high CVD mortality in the 1970s; today, CVD mortality there is >80% lower. This landmark prevention study has served as the model for CVD prevention worldwide. The Finnish Diabetes Prevention Study for the first time clearly showed that over 50% of type 2 diabetic (T2D) cases can be prevented by healthy lifestyle; its impact was high in the scientific community and resulted in a global effort to prevent T2D. My studies have been instrumental in developing understanding the dangers of post-meal glucose excursion. I have mapped the incidence of type 1 diabetes (T1D) in children worldwide and demonstrated a dramatic constant increase in T1D incidence. My studies have contributed very significantly to the identification of genes for both T1D and T2D, and CVD risk factors such as obesity, dyslipidaemia and blood pressure. In addition, my studies have shown that the risk of Alzheimer's disease (AD) in the elderly is related to CVD risk factors in mid-life, developing the new paradigm that AD is a vascular disease, and that lowering high blood pressure in the elderly reduces the AD risk.

Biography: Prof. Jaakko Tuomilehto has contributed to medical science and public health in a very wide scale. He has set up several major landmark studies on cardiovascular disease and diabetes, including the North Karelia Project and the Finnish Diabetes Prevention Study that have had major global impact on the prevention of these diseases. His innovative research has led to mapping the incidence of type 1 diabetes worldwide, and helped to understand that Alzheimer's disease has vascular origin with multiple modifiable risk factors. His contribution to the genetics of type 1 and 2 diabetes is very significant; he has been developed major international research projects in this area, including work on gene-lifestyle interaction. He has carried out many important controlled clinical trials; particularly those in hypertension. He has also been one of the leading scientists pointing out the importance of postprandial glucose in the diagnosis of diabetes and impaired glucose regulation, and as a predictor of cardiovascular disease. Many of his studies on diet and health are highly important. He has published over 1000 peer-reviewed original articles (in English). According to the ISI global citation analysis JT ranks among the 12 most cited scientist in clinical medicine (>30 000 citations during the last 10 years) and his h-index is 95 (last 20 years).