

## Curriculum vitae

### Jaakko Arthur Kaprio



Jaakko Kaprio, M.D., Ph.D. is Professor of Genetic Epidemiology, University of Helsinki, Finland since 2001. He held a five-year research professorship fully funded by the Academy of Finland from 2013 to 2017. The Academy Professorship research theme was on genetics, epigenetics and epidemiology of smoking and nicotine dependence. He was Director of the Institute for Molecular Medicine FIMM from Oct 1, 2015 to January 31, 2018; FIMM is an EMBL-associated biomedical research institute focusing on personalized cancer therapies, large-scale genetics studies (such as FinnGen) and use of AI in digital pathology. Dr. Kaprio has worked in genetic epidemiology with a focus on risk factors of non-communicable disease, especially smoking and alcohol use and dependence. He has worked with the Finnish Twin Cohort studies since 1976, and with other population-based samples in Finland. He has engaged in extensive international collaborations, including multiple NIH and EU funded projects. He has served as President of the Society for Research on Nicotine and Tobacco European chapter, as well as President of the Behavior Genetics Association and has been active in cancer and tobacco-related NGOs in Finland.

#### Full name and date

Surname, given name: Kaprio, Jaakko      Gender: Male      Date of writing CV: June 10, 2019

#### Date and place of birth, nationality, current residence

Date and place of birth: 23 April, 1952, Helsinki      Citizenship: Finnish      Current residence: Helsinki  
 Contact details:      Institute for Molecular Medicine Finland (FIMM)  
    University of Helsinki, FIN-00014 Helsinki, Finland

#### Education and degrees awarded

M.D. Licenciate in Medicine, Helsinki University	1976
Ph.D. Doctor of Medical Science (Public Health), Helsinki University	1984

#### Other education and training, qualifications and skills

International Research Training Fellowship, International Agency for Research on Cancer, Lyon	1987-1988
Visiting scholar, Indiana University Department of Psychology, Bloomington, Indiana (6 months)	1988
Research scholar, University of Southern California, Dept of Preventive Medicine, Los Angeles, Ca. (9 months)	1987-1988
Visiting scholar, Dept of Human Genetics, University of Michigan 1989 (6 months)	
Visiting investigator, University of Michigan Department of Human Genetics, Ann Arbor (6 months)	1989

#### Linguistic skills

Mother tongue: Finnish; Other languages: English (Excellent), French (Excellent)

#### Current position

Professor of Genetic Epidemiology, Dept of Public Health, University of Helsinki	March 1, 2001-
Research professor, Institute for Molecular Medicine Finland (FIMM), University of Helsinki	Feb 1, 2018-

#### Previous work experience

Academy Professor, Academy of Finland	2013-2017
Director, Institute for Molecular Medicine Finland (FIMM), University of Helsinki (2 yrs, 4 mths)	2015-2018

Chair, Department of Public Health	2004-2009
Vice-Director, Hjelt Institute, University of Helsinki	2010-2013
Academy of Finland Centre of Excellence in Complex Disease Genetics	
Vice-director	2006-2007
Director	2007-2011
Professor of Public Health, University of Oulu	1997-2001
Associate Professor of Public Health, University of Turku	1995-1997
Various research (Academy of Finland junior and senior researcher) and teaching positions in Finland	1976-1994
Adjunct Professor in Epidemiology, University of Helsinki	1987
<b>POSITIONS ABROAD</b>	
Visiting Scientist (by competition), University of Alberta (several longer visits)	2006-2007
Visiting fellow (by invitation, Institute for Advanced Studies, Indiana University (5 weeks)	1990

### **Research funding (current and recent major funding) as well as leadership and supervision**

#### ***Academy of Finland funding (as PI):***

Academy of Finland, Academy Professor grant, 1,482,920€	2013-2017
Academy of Finland, COHORT program. Longitudinal birth cohort and family based studies of morbidity, mortality and social disadvantage: a consortium application on sharing data, family designs and methods, 299,985€	2017-2020
Academy of Finland, Centre of Excellence in Complex Disease Genetics – From Discovery to Precision Medicine (total duration 2018-2025). 330,789€	2018-2020

#### ***European Union funding (as PI for University of Helsinki)***

EC FP7 I.Family. Determinants of eating behaviour in European children, adolescents and their parents- KBBE-2010-4. 2012-2017. J. Kaprio PI for University of Helsinki partner. Local 266448€/total 10,278,708€. ( <a href="http://www.ifamilystudy.eu">www.ifamilystudy.eu</a> )	2012-2017
Marie Curie Initial Training Networks (ITN), EPITRAIN, Epigenetic Training Network – Innovative techniques and models to understand epigenetic regulation in the pathogenesis of common Diseases (FP7-PEOPLE-2012-ITN), J. Kaprio PI for University of Helsinki, local 800,000€/total 3,816,547€	2013-2017
EC FP7 ACTION, Aggression in Children: Unravelling gene-environment Interplay to inform Treatment and intervention strategy. FP7-HEALTH-2013-INNOVATION-1, project 602768. JK PI for Univ Helsinki partner (local 507,520€/total 5,999,079€)	2014-2019

#### ***US NIH funding (as PI for Finnish site)***

U.S.-P.H.S (# HL104125, PI Xiaoling Wang, A genome-wide methylation study on essential hypertension. subcontract 634, 831 USD for University of Helsinki (PI J Kaprio)	2011-2016
U.S. - P.H.S. (# 2R01AA012502-11-A1) (Richard Rose, Indiana University) NIH/NIAAA Adolescent Alcohol Abuse: A Twin-Study Perspective Finnish subcontract 400,000 USD	2014-2019
2R01 AA015416-A1, NIH/NIAAA Gene-environment interplay in the development of alcohol use and related problems (PI Danielle M Dick) 419,054 USD	2014-2019
R01 DA042742 NIH/NIDA Integrative Prioritization of Alcohol and Drug-Addiction Related Genetic Loci. PI (Rohan Palmer, Emory)	2018- 2023

**Other funding (as PI)**

Sigrid Juselius Foundation, 240,000€	2016-2018
Sigrid Juselius Foundation, 100,00 €	2018-2020
University of Helsinki, HiLife Fellow, 180,000€	2017-2020

**Official supervisor for 51 PhD Students**

Lauri Karhumäki 1993; Riitta Luoto 1995; Pia Verkasalo 1996; Maarit Korkeila 1999 ; Maija Räsänen 2000; Karri Silventoinen 2000; Danielle M Dick 2001; Elisa Huovinen 2002; Marja Aarnio 2002; Linnea Haarasilta 2003; Kirsi Lillberg 2003 ; Torsten Winter 2004 ; Elina Vierikko 2004; Miika Hernelahti 2004; Anna Keski-Rahkonen 2004; Kirsi Pietiläinen 2004; Tuula Kiesepä 2005; Marja-Liisa Kinnunen 2005; Heli Bäckmand 2006; Harri Hemilä 2006; Varpu Penninkilampi 2006; Kristiina Tiainen 2006; Suoma Saarni 2008; Ulla Broms 2008; Siamak Bidel 2008; Marja Heinonen-Gusejev 2009; Anu Raevuori 2009; Elina Sihvola 2010; Hanna-Reetta Lajunen 2010; Anne Viljanen 2010; Eero Vuoksima 2010; Antti Latvala 2011; Venla Laitala 2011; Katja Waller 2011; Maria Hukkinen 2011, Jyri Virta 2012, Linda Mustelin 2012, Outi Törnwall 2013, Sari Aaltonen 2013, Leonie Bogl 2014, Mikko Lehtovirta 2014, Katarina Rintakoski 2014, Minna Ståhl 2014, Milla Linna 2014, Ritva Markkula 2014, Jenni Hällfors, 2017, Richa Gupta 2018, Mirva Rottensteiner, 2018, Pyry Sipilä, 2018, Ulla Kärkkäinen, 2018, Joni Lindbohm, MD, 2018

**Current supervised students** Bram Brentzen, Msc; Sailalitha Bollepalli, MSc, Ilari Rautalin, MD

**Merits in teaching and pedagogical competence**

- I have organized many courses and workshops over the years, and participate in several Graduate Schools of the University of Helsinki.
- Work Package leader, WP on Training and Education, Genomeutwin-project, FP5 Integrated project
- Work-package leader, WP on Training and Education, ENGAGE-project, FP7 2008-2012
- Chair, organizing committee for Annual meeting of the European Chapter, Society for Research on Nicotine and Tobacco, Helsinki, 2012
- International Scientific Committee, 14<sup>th</sup> Congress, International Society of Twin Studies, Florence 2012
- Partner, Marie Curie International Training Network "Epitrain" (on epigenetics) and Chair of Training Committee Coordinator Prof. Tim Spector, King's College, London, UK.

**Awards, prizes and honours**

- Research Fellowship and Bursar, Ciba Foundation, London (1989)
- Fellow (Genetic Epidemiology), Institute for Advanced Study, Indiana University (1990)
- Volvo Award on Low Back Pain Research (1991)
- Volvo Award on Low Back Pain Research (1998)
- James Shields Memorial Award for Twin Research, ISTS (2001)
- Elected Epidemiologist of the Year by the Finnish Epidemiological Society (2nd time the award has been given) (2005)
- Dr.Med. honoris causae, University of Southern Denmark (2006)
- Visiting scientist (selected on competitive basis), University of Alberta (2006-2007)
- Kappa Delta Award, Orthopedic Research Society, United States (2008)
- Maud Kuistila memorial award (15 000 euros) for excellence in post-graduate teaching (2008)
- Knight 1<sup>st</sup> class, Finnish Order of the White Rose, 2008
- Finnish Academy for Science and Letters, elected to membership 2009
- Fellow, European Society of Cardiology, 2012
- Yrjö Jahnsson Award in Science, 2014
- Fellow, European Academy of Cancer Sciences, 2015

- The Dobzhansky Award (given by BGA) for lifetime accomplishments, 2016
- Clavariate High Cited scientist, 2017 & 2018
- Dr Sports and Health Sciences honoris causae, University of Jyväskylä, 2019

### Other academic merits

- Numerous expert, referee and reviewer duties in Finland and abroad.
- Referee or official opponent for 39 doctoral dissertations
- Supervised seven Master's theses (non-medical).
- Doctoral dissertation official (50 times) or unofficial supervisor/advisor (about 50).
- Member of the Editorial Board of the *Psychiatric Genetics* (1990-)
- Member of the Editorial Board of the *Finnish Journal of Social Medicine* (1994-)
- Associate Editor of *Twin Research and Human Genetics* (1998-)
- Member of the Editorial Board of the *International Journal of Behavioral Medicine* (1999-2011)
- Associate Editor, *Addiction* (2004-2018)
- Associate Editor, *Nicotine & Tobacco Research* (2010-2014)
- Senior Editorial Board, *International Journal of Molecular Epidemiology and Genetics* (2009-)
- International Epidemiological Association, member
- Society for Epidemiological Research, member
- International Genetic Epidemiology Society, Founding Member
- Behavior Genetics Association, member
- Finnish Epidemiological Society (founding member since 2000), auditor since 2002
- Society for Research on Nicotine and Tobacco, member

### SCIENTIFIC AND OTHER POSITIONS OF TRUST HELD

#### International

- President for the International Society for Twin Studies 2005-2007, Past-President 2008-2010
- Board member, Society for Research on Nicotine and Tobacco, representative for Europe (2009-2011)
- President-elect, European Chapter, Society for Research on Nicotine and Tobacco, 2010-2011
- President, European Chapter, Society for Research on Nicotine and Tobacco, 2011-2012
- Co-Chair, Genetics Network, Society for Research on Nicotine and Tobacco, 2010-2013
- International Scientific Committee member, European Public Health Association 2007-2011
- President (elect, main & past), Behavior Genetics Association 2014-2017
- Member of Scientific Advisory Board: CRUK: Reducing the Burden of Cancer: causal risk factors, mechanistic targets and predictive biomarkers, University of Bristol, UK 2015-2018
- Internal Member of AgeCare project, Elite Research Center at Odense University Hospital, University of Southern Denmark, 2014-2018

#### National

- Chair for the Finnish Society of Social medicine, Section of behavioral medicine (2004-2006)
- Medical Faculty member (elected for 2004-2006 , 2007-2009 & 2010-2013 periods) & chair or member of several faculty or university committees
- Member, Medical Research Council, Academy of Finland 2010-2012 & 2013-2015
- Chair, Steering Board, Academy of Finland Research Program on Public Health 2009-2012
- Member, Steering Board, Academy of Finland Research Program on Addictions, 2010-2011
- Member, Helsinki University Central Hospital Research Board (EVO-toimikunta) 2009-2012

- Sports Science committee, National Sports Council, Government of Finland 2011- 2015
- The Board of the Cancer Foundation of Finland, vice-chair, 2012 -2018
- Ministry for Social Affairs and Health, Advisory Board for Public Health, deputy member, 15.4.2012 -14.4.2015
- Helsinki Biobank, Scientific-Ethical Committee 2016-
- National Institute for Health & Welfare Biobank Scientific-Ethical Committee 2015-
- Scientific committee chair, Tobacco-free Finland 2030 network, 2012-2017

### **Publications**

In PubMed, I have 1133 papers listed (June 10, 2019). In the ISI Web of Knowledge (June 2019) citation analysis 1079 publications, when abstracts, notes and corrections are excluded. These have been cited 60,538 times, an average of 56 citations per item with an H-index of 114.

Full list of publications <https://tuhat.halvi.helsinki.fi/portal/fi/publications/search.html?search=jaakko+kaprio>