

**Personal details and date of CV**

Dec 27, 2023

HUKKANEN, Veijo Ilmari

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**Degrees**

Competence for professorship in Virology, University of Oulu, Finland, 2002 and 2006.

Title of Docent (adjunct professor) of Virology, Dec 22, 1993, University of Turku.

Doctor of Medical Sciences (MDPhD), March 9, 1983, and Licentiate in medicine (MD), March 7, 1983, University of Turku. Bachelor in Medicine, Dec 1977, University of Turku.

**Current employment**

Senior Research Fellow, University of Turku, Nov 1, 2023-current.

**Previous work experience**

Professor of Virology, University of Oulu, Jan 1 2007- Aug 31 2009 (nominated Dec 13, 2006) (on partial research leave). Professor of Virology, acting, University of Oulu, Nov 2005 - Dec 2006.

Professor, University of Turku, (Dept. of Virology) July 1, 2010 - July 31, 2013. Professor of Virology, University of Turku, (acting) Oct 2003-Jan 2004 and July 2004. Professor of Virology, University of Oulu, (acting) Apr-May 2001.

Clinical Lecturer, Virology, Univ. Turku, Sep 1, 2009 - Oct 31, 2023 (on leave until Aug 1, 2013), stage III, retired on Oct 31, 2023.

Senior Lecturer of Virology (apulaisopettaja), University of Turku, 1999-2004; (2004-9 on leave); Research Associate (assistentti), Dept of Virology, University of Turku, 1984-1990, 1991-9; Senior Research Associate (yliassistentti), Virology, 1991-7, total 15 months.

Assistant physician, Clinical microbiology, Turku University Hospital, 1991 (part time).

Postdoctoral fellow, NIH/Fogarty, Nov 1987-March 1989 (University of Chicago).

Visiting Scholar, University of Chicago, Roizman laboratory, 1998-2001 (5 mo.)

Expert consultant for industry, part time, Orion Pharma, Turku, 2019-2024.

**Research funding and grants**

Postdoctoral fellowship (NIH/Fogarty fellowship), University of Chicago, Bernard Roizman's laboratory, 1987-9, \$ 22000. Research grants: Jane and Aatos Erkko Foundation (#170046) 2018-2020 (-2021), 850 000 € (PIs: VH and Minna Poranen). Project 2600491-311 University of Turku and Orion Pharma, 2020-2023, 138000 € (PI: VH). Academy of Finland (RCF), the Research Council for Health, research grants: Research project SA259725, PI: Veijo Hukkanen, 2012, 412 500 €; Research project SA128915, PI: Veijo Hukkanen, 2008, 250 000 €; Project 118366 for research expenses, 2007; Project 211035 for research expenses, 2004; Academy Research Fellow (Akatemiatutkija) position, Academy of Finland, Aug 1, 2004-July 31, 2009. Research project SA54050, PI: Veijo Hukkanen, 2002, 151369 €; Turku University Hospital EVO research grants 1997-1999, 43762 €; Cancer Foundation of Finland (Syrjänen S, Johansson B, Hukkanen V) 2000-1,-03, 59047 €; CIMO TM-12-8550 to host visiting scientist MSc Ivana Colao (from U.of Messina), 2013. Grant for international activities, Health Biosciences, Faculty of Medicine, Univ. Turku, 2014. Turku University Foundation research grants 1997-2004, 2015, and 2022 (14032 €). Grants for advancing education: see Teaching merits section.

## Research output

The projects resulted in introduction and development of herpes simplex virus-based gene therapy vectors/oncolytics and gene therapies, eg. for the *in vivo* model disease of MS. Also a promising novel antiviral application of RNA interference was established and developed (siRNA swarms). Over 100 articles in peer-reviewed journals, including Molecular Cell, Gene Therapy, Journal of Virology, Journal of Biological Chemistry, Scientific Reports, Molecular Therapy, Antiviral Research, PloS Pathogens, Pharmaceuticals. (Separate list). Numerous reviews and book chapters in international and domestic series and textbooks, such as the national textbook of medical microbiology. PhD/MSc alumni have succeeded in their careers in industry or academia.

## Research supervision and leadership experience

Supervised doctoral theses :12 PhD or MD PhD or DDS PhD theses 1992-2023; at University of Turku (UTU), University of Oulu, and University of Messina. Ongoing: MD Jussi Palomäki. Thesis advisor/monitor for 7 more PhD theses. Mentor of a thesis work at Åbo Akademi University 2022-.

Supervised postdoctoral researchers: PhD Marie Nyman 2019-21, PhD Reza Sadeghi 2018-9, PhD Outi Heikkilä 2014-16, PhD Michaela Nygårdas 2013-14. Visiting scientist/exchange student supervisions (9) from University of Rijeka, Croatia, University of Messina, Italy, ETH Zürich, Medical University of Gdansk, Poland, and University of Catania. Supervisor of over 20 MSc (pro gradu) projects; Åbo Akademi University, University of Turku, 1985-2022 and University of Oulu 2006-10.

Official duties and leadership experience: Chairperson of the Institute of Microbiology and Pathology (Kliinis-teoreettinen laitos), University of Turku, 2001-2003. Vice Chairperson of the Institute of Microbiology and Pathology, Univ. of Turku, 2004-2006 and 2010-11. Council of the Faculty of Medicine, Univ. of Turku, vice membership, 2001-2003. Steering group of the Department of Diagnostics, University of Oulu, 2008. Board of the Department of Microbiology, University of Oulu, Apr-May 2001 and 2006-7. Leader and PI of herpesvirology research group, own research profile and funded projects since 1997. Numerous completed courses for academic leaders, U. of Turku.

## Teaching merits

Four decades of activating teaching of virology and biomedicine. Completed the 1st Training Course in University Pedagogics, 1996-7 and 1st Training Course in Medical Pedagogics, U. of Turku, 2000. Authored numerous chapters in the national microbiology textbook (Duodecim, 1993-2020). Training of colleagues in activating teaching (PBL, CBL), 2000-2023. Funding for educational projects: University of Oulu, Campus Futurus (K. Harila, VH, O. Vainio) 2008, € 7000; Ministry of Education for developing the www-based teaching 1997, € 5887; Faculty of Medicine, for developing www-courses, € 1000; Turku University Foundation (€ 3500) and Turku Immunology Center TIC (€ 1500) for organizing education in the International Herpesvirus conference IHW2005.

## Other key academic merits, expert duties

Expert for FIMEA and the European Medicines Agency EMA in Virology (2014-5). Expert for Swedish Research Council, June 2020. Expert for Croatian Science Foundation, Oct 2020. University Research Evaluator in RED10 evaluation, University of Gothenburg, Sweden, Biomedicine panel (2010). Expert for National Board for Gene Technology (2007) and Labquality Oy, 2003-2012; Labquality national working group for QA in virology, 2009-2012, for Academy of Finland/Research Council for Biosciences and Environment, working group on Microbiology, 2008. Official Opponent: Karolinska Institute, Stockholm, 2010 (PhD B. Bereczky-Veress); MD Sanna Aalto, University of Helsinki 2007; PhD Reitu Agrawal, University of Kuopio, Finland 1994; Dissertation Committee of PhD Maria Perdomo, Karolinska Institute, Stockholm, 2012. Dissertation pre-examiner for 26 MDPHD / PhD dissertations (1995-2023), Universities of Helsinki, Jyväskylä, Turku, Kuopio, Tampere (Finland). Membership in the thesis/doctoral committee, Faculty of Medicine,

University of Turku, 2010-14; 2004-6; University of Oulu 2006-9, vice. Reviewer for docent positions: Åbo Akademi University, Finland, 2022 (PhD Silvia Gramolelli) and 2013, (PhD J.E. Heikkilä); University of Tampere, Finland, 2013 (PhD Tuija Kekarainen); University of Helsinki 2015 (PhD Markus Vähä-Koskela). Reviewer for professorships: University of Tampere, Finland, 2008; Mount Sinai School of Medicine, New York, 2004; for associate professorship, University of Alabama School of Medicine 2006 and in 2009; for Staff scientist position, NIH, NIAID, USA, 2007. Reviewer of scientific competence: USA, 2016; USA, 2012; NIH, USA, 2005. Editorial Board Member: The Open Virology Journal 2007-2010; Frontiers in Molecular Medicine 2022-; Microorganisms special issue 2023-24. Reviewer ad hoc for 30 journals, including Journal of Infectious Diseases, Molecular Therapy, Gene Therapy, Human Gene Therapy, PLoS Pathogens, Journal of General Virology, Journal of Medical Virology, BMC Microbiology, BMC Infectious Disease, Vaccine, Viruses, Microorganisms etc. Grant reviews: Swedish Research Council, 2020, Croatian Science Foundation 2020, AFM-Telethon France 2016, Instrumentarium Foundation 2016, European Union ERANet 2013, Alzheimer's Research Trust Review Board 2004, FSGT grants 2005-, ITY grant reviews 1998-, Grant committee member, UTU Faculty of Medicine, 2004-6, Grant committee, the Research Foundation of Virus Diseases, Finland, 2010-12, committee chair 2012, Turku University Foundation special funds research grants 2010-2015. Reviewer of scientific presentations: e.g. International Herpesvirus conferences (IHW)2004-7, 2009-2017, 2021-23; European Society for Gene and Cell Therapy 2022, 2021, 2019, 2018, 2017, 2015, Scandinavian Virology meeting 2019, European Society for Clinical Virology 2008, British-Scandinavian Meeting in Microbiology 2011, Bergen, Norway. Board member: the Research Foundation for Virus Diseases, Finland, 2010-18 (vice chair 2012-8); Finnish Society for Brain Tumor Research (vice) 2017-2019, Finnish Society for Research on Infectious Diseases ITY board 1998-2010, Finnish Society of Gene and Cell Therapy FSGCT, board 2005-2023, founding member 1999-. Organizing Committee and Scientific Advisory Board (SAB) memberships, chairperson duties: The Steering Committee (Council) for the International Herpesvirology conferences, 2005 -current. Organizer and Co-chair of the 30<sup>th</sup> IHW 2005, Turku, Finland. 533 participants. SAB/IRC member and session chair at the IHW conferences 2001-2021 (in Belgium, Japan, USA, Germany, Poland, Finland and Canada, and virtual IHW2021); The Scandinavian Virology Meeting Turku 2019; the British-Scandinavian Meeting in Microbiology 2011, Bergen, Norway; the European Society for Clinical Virology (ESCV) General Meeting 2008, Finland, European Society for Gene Therapy, Tampere, Finland, 2004, organizing board; the 12<sup>th</sup>, 20<sup>th</sup>, and 27<sup>th</sup> BioCity Symposia, Finland 2002, 2010, 2017 (organizer, session chair); SAB/IRC member: IHW 2016 (Madison, WI, USA), IHW 2022 (virtual), IHW2023 (Missoula, MT, USA); the European Society of Gene & Cell Therapy Congress, Helsinki 2015; Virology Days 1997, 2007. Invited speaker: eg. national Virology meeting 2023; Roizman Symposia, University of Chicago, 2019, 2014, 2009; ESF workshop, University of Rijeka, Croatia, 2016; the 9th Smögen symposium on Virology, Gothenburg, Sweden, 2013; 10th Northern Lights Neuroscience symposium 2013; 15th International Conference on Immunobiology and Prophylaxis of Human Herpesvirus Infection, 2011, Venice, Italy.

### **Scientific and societal impact**

Served as an expert nationally and internationally for medicines authorities, the virology community and for general media (interviews for newspapers, journals, radio, TV). Served as a virology expert for local pharma industry. Organized a large scientific meeting, which benefited the local economy. Made Finland known in the herpesvirology community by diverse activities for decades. Provided unique resources, such as recombinant HSV gene vectors and backbones, to national and European colleague laboratories. Developed novel molecular diagnostic tests for severe virus infections, benefiting healthcare nationally. Served the institute as the responsible director of use of radioactivity in research, and use of genetically modified organisms (GMO). Educated students and supervisors of the DRDP drug research graduate school on research integrity and ethics.