

Curriculum Vitae (25.4.2022)

Name:

Hirvonen, Jouni Tapio, b. 7.8.1965

Address:

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Degree Education:

Licensed Pharmacist (proviisori), Pharmaceutical Technology, University of Kuopio, 22.5.1989

Ph. D. (Pharmacy) (farmasian tohtori), Pharmaceutical Technology, "Enhancement of Transdermal Drug Penetration with Dodecyl N,N-Dimethylamino Acetate and Iontophoresis", University of Kuopio, 14.3.1994

Docent, Pharmaceutical Technology, University of Kuopio, 1.6.1998

Current position:

Professor, Pharmaceutical Technology, University of Helsinki, Division of Pharmaceutical Chemistry and Technology, 1.8.1998–

Dean, Faculty of Pharmacy, University of Helsinki, 1.1.2010–

Vice-Rector of Research, Research Education and Innovations, University of Helsinki, 1.3.2022–

SCIENTIFIC MERITS

Publications:

Since 1990, >350 peer reviewed original research and review articles and book chapters in the fields of Biopharmacy, Pharmaceutical Technology, Controlled Drug Delivery, Physical Pharmacy and Surface and Colloid (Nano) Sciences. Very high impact factor publications in ACS Nano, Advanced Materials, Advanced Functional Materials, Analytical Chemistry, Biomaterials, Journal of Biological Chemistry, Molecular Pharmacology, Nanomedicine, Nature Biotechnology, Nature communications and Small. Majority of the publications in the best (bio)pharmaceutical journals (Pharmaceutical Research, Journal of Controlled Release, European Journal of Pharmaceutical Sciences, European Journal of Pharmaceutics and Biopharmaceutics, International Journal of Pharmaceutics, Journal of Pharmaceutical Sciences, Molecular Pharmaceutics).

Also active publication profile and record in the field of pharmaceutical teaching development and educational pedagogics.

H index = 81; Citations = 19,201 (2017-: H-I = 57 ; C = 10071) (Google Scholar 24.4.2022)

31 patents/applications

Highly cited scientist in the University of Helsinki, 2015

Major grants:

Since 1994 in total >30 major research grants worth about 6.8 M Euros; research funding by the Academy of Finland, National Technology Agency, European Union Framework Programme 6, University of Helsinki Funds, other national Funds, and national and international drug industry.

Extramural collaboration:

International:

University of Porto, Portugal; University of Pavia, Italy; University of Parma, Italy; Guangdong Pharmaceutical University, China; Uppsala University, Sweden; University of Copenhagen, Denmark,

University of Tartu, Estonia; Kaohsiung Medical University, Taiwan; University of Groningen, The Netherlands

National:

Aalto University, Laboratory of Physical Chemistry and Electrochemistry; University of Helsinki, Laboratory of Polymer Chemistry, Laboratory of Radiochemistry, Laboratory of Materials Physics, Laboratory of Inorganic Chemistry; University of Eastern Finland, Department of Pharmacy, Department of Physics; Orion Pharma; Bayer, Medfiles

Awards

Jouni Hirvonen: The Young Scientist Award, University of Kuopio, 1993

Jouni Hirvonen: The Nagai Foundation Tokyo CRS Graduate Student Award, 1998

Jouni Hirvonen: CRS/Eurand Grand Prize Award on Innovations in Oral Drug Delivery Technologies. 34th Annual Meeting of the Controlled Release Society, Long Beach, USA, 2007

Dr. **Samuli Hirsjärvi:** Albert Wuokko Young Researcher Award, 2008

Docent **Timo Laaksonen:** Young Researcher Award, Faculty of Pharmacy, University of Helsinki, 2012

Dr. **Luis Bimbo:** Albert Wuokko Young Researcher Award, 2012

Docent **Hélder Santos:** Young Researcher Award in the Faculty of Pharmacy, University of Helsinki, 2013

Dr. **Luis Bimbo:** APV Best PhD thesis award in Europe in 2012-2013, 2014

Jouni Hirvonen: Highly cited scientist in the University of Helsinki, Finland, 2015

Dr. **Dongfei Liu:** Best PhD thesis award in the University of Helsinki in 2014, University of Helsinki, Finland, 2015

Dr. **Mohammed-Ali Shahbazi:** Best PhD thesis award in the University of Helsinki in 2015, University of Helsinki, Finland, 2016

Dr. **Dongfei Liu:** Young Researcher Award in the Faculty of Pharmacy, University of Helsinki, 2017

Dr. **Neha Shrestha:** APV Best PhD thesis award in Europe in 2016-2017, 2018

Dr. **Monica Ferreira:** Albert Wuokko Young Researcher Award, 2018

Dr. **Flavia Fontana:** APV Best PhD thesis award in Europe in 2019-2020

Invited lectures, oral presentations:

More than 400 invited lectures and oral congress presentations. More than 170 poster presentations.

Memberships in scientific organizations:

President: Controlled Release Society (CRS), Nordic Chapter, 2007–2011

American Association of Pharmaceutical Scientists (AAPS), 1990–

Controlled Release Society (CRS), 1990–

Physical Pharmacy Federation, Finland, 1996–

European Pharmaceutical Federation (EUFEPS), 2001–

Finnish Pharmaceutical Association, 2005–

ExCo member: European Association of Faculties in Pharmacy (EAFP), 2005–

ExCo member: ULLA graduate School Network, 2013–

Chair: NFIF graduate school network (Norway), 2015-

Supervised doctoral theses:

Merja Kirjavainen: A mechanistic evaluation of liposome-enhanced percutaneous permeation of drugs (77 p. + original publications). University of Kuopio, 1999

Leena Peltonen: The interfacial behavior of sorbitan surfactant monolayers and the bulk properties of these surfactants as a function of temperature (42 p. + original publications). University of Helsinki, 2001

Tarja Kankkunen: Controlled transdermal drug delivery by iontophoresis and ion-exchange fiber, (57 p. + original publications). University of Helsinki, 2002

Mirka Korhonen: Rheological properties of pharmaceutical creams containing fatty acid ester surfactants, (62 p. + original publications), University of Helsinki, 2003

Nina Katajavuori: Vangittu tieto vapaaksi – Asiantuntijuus ja sen kehittyminen farmasiassa (Free the captured knowledge – Expertise and its development in the field of pharmacy), (125 p. + original publications + addendums), University of Helsinki, 2005

Leena Laitinen: Caco-2 cell cultures in the assessment of intestinal absorption: Effects of some co-administered drugs and natural compounds in biological matrices, (66 p. + orig. papers), University of Helsinki, 2006

Henna Vihola: Studies on thermosensitive poly(N-vinylcaprolactam) based polymers for pharmaceutical applications, (45 p. + orig. papers) University of Helsinki, 2007

Samuli Hirsjärvi (nee Hyvönen): Preparation and characterization of poly(lactic acid) nanoparticles for pharmaceutical use, (42 p. + orig. papers), University of Helsinki, 2008

Kaisa Hänninen: Characterization of ion-exchange fibers for controlled drug delivery, (65 p. + orig. papers), University of Helsinki, 2008

Sanna Siissalo: The Caco-2 cell line in studies of drug metabolism and efflux, (60 p. + orig. papers), University of Helsinki, 2009

Paula Lehto: Mechanistic Studies of Drug Dissolution Testing - Implications of solid phase properties and *in vivo* prognostic media, (49 p. + orig. papers), University of Helsinki, 2010

Tiina Heikkilä: Miniaturization of drug solubility and dissolution testings, (61 p. + orig. papers), University of Helsinki, 2010

Tarja Linnell: Mesoporous silica- and silicon-based materials as carriers for poorly water soluble drugs. (63 p. + orig. papers), University of Helsinki, 2011

Luis Bimbo: Biocompatibility and biofunctionalization of mesoporous silicon particles. (52 p. + orig. papers), University of Helsinki, 2012

Hanna Valo: Biopolymer-based nanoparticles for drug delivery. (50 p. + orig. papers), University of Helsinki, 2012

Anne Soikkeli: Automatable microplate-based *in vitro* assays for screening intestinal drug transport and metabolism. (83 p. + orig. papers), University of Helsinki, 2012

Hongbo Zhang: UGTs and glucuronidation analyses in Caco-2 cells, human microsomes and recombinant enzymes (70 p. + orig. papers), University of Helsinki, 2012

Ruzica Kolakovic: Nanofibrillar cellulose in drug delivery (52 Invited lecture: Hirvonen J.: p. + orig. papers), University of Helsinki, 2013

Peng Liu: Nanocrystal formulation for poorly soluble drugs (62 p. + orig. papers), University of Helsinki, 2014

Dongfei Liu: Porous silicon -based multicomposites for controlled drug delivery (65 p. + orig. papers), University of Helsinki, 2014

Mohammad-Ali Shahbazi: Effect of surface chemistry on the immune responses and cellular interactions of porous silicon nanoparticles (82 p. + orig. papers), University of Helsinki, 2015

Chang-Fang Wang: Chemical surface modification of porous silicon nanoparticles for cancer therapy (73 p. + orig. papers), University of Helsinki, 2015

Annika Tuomela: Nanocrystals for drug delivery applications (71 p. + orig. papers), University of Helsinki, 2015

Neha Shrestha: Mesoporous silicon systems for oral protein/peptide -based diabetes mellitus therapy (73 p. + orig. papers), University of Helsinki, 2016

Barbara Herrantz: Multi-approach design and fabrication of hybrid composites for drug delivery and cancer therapy (74 p. + orig. papers), University of Helsinki, 2016

Kristina Malinovskaja: Transdermal iontophoresis – Delivery control by ion-exchange fibers and nanocarriers (76 p. + orig. papers), University of Helsinki, 2016

Monica Ferreira: Multifunctional nanoparticles for targeted drug delivery and imaging for ischemic myocardial injury (70 p. + orig. papers), University of Helsinki, 2017

Patrick Almeida: Multifunctional porous silicon based nanocomposites for cancer targeting and drug delivery (107 p. + orig. papers), University of Helsinki, 2018

Flavia Fontana: Biohybrid cloaked nanovaccines for cancer immunotherapy (78 p. + orig. papers), University of Helsinki, 2019

Zehua Liu: Porous silicon-based on-demand nanohybrids for biomedical applications (83 p. + orig. papers), University of Helsinki, 2019

Patricia Figueiredo: Development of lignin-based nanoparticles for cancer therapy (76 p. + orig. papers), University of Helsinki, 2020

Feng Zhang: Development of transformable nanotherapeutics for cancer therapy (49 p. + orig. papers), University of Helsinki, 2021

Nazanin Zanjanzadeh Ezazi: Development and characterization of conductive drug-loaded scaffolds for tissue engineering applications (49 p. + orig. papers), University of Helsinki, 2021

Joao Pedro Martins: Neonatal Fc receptor-targeted nanoparticles for oral delivery of anti-diabetic drugs (78 p. + orig. papers), University of Helsinki, 2021

13 times thesis opponent (Finland, Switzerland, Norway, Italy) and 10 times thesis pre-evaluator

Very strong emphasis on education, training, mentoring and pedagogic approaches in pharmaceutical, scientific and multidisciplinary activities.

Administrative Tasks with regards to Science, Evaluation and Industrial Applications:

Evaluation panelist, Health Research, The Academy of Finland, 1999 – 2000

Chairman of the Federation of Pharmacy Teachers and Researchers (FOTY), 1999 – 2003

Member of the Board for the Finnish Pharma Cluster – Vision 2010, 1999 – 2003

Chairman and Member of numerous Scientific Meetings and Symposia in Finland and abroad, 2001–

Chairman and Member of numerous Professorship Selecting Committees and Docentship Evaluating Committees in Finland and abroad, 2003–

Chairman, In Vitro and In Vivo Screening (19 subprojects), Drug 2000 Program by TEKES and the Academy of Finland, 2001 – 2005

Chairman, National ADME Cluster in Finland, 2001 – 2007

Leader and Administration Board Member in the LIINTOP FP6 EU project, 2007 – 2009

Member of the board, Helsinki University Hospital, Hospital Pharmacy, 2008 – 2009

Member of the board, Drug Policy 2020 in Finland, Ministry of Health, 2010

Member of the Pharmacopoeia Committee, Finnish Medicines Agency FIMEA, 2010–2016

Expert, European Pharmacopoeia Commission, European Directorate for the Quality of Medicines & Health Care (EDQM), Group 12 Dosage Forms and Methods, Strasbourg, France, 2011-2016

Chair of the Evaluation Board, National Graduate School in Norway (NFIF), 2016-

Faculty Co-Chair: University of Helsinki profiling activity rounds 4, 5 and 6, 2018-

Chair: EAFP Annual Meeting in Helsinki, 2018

Chair: ULLA Summer School in Helsinki, 2019

Chair: Faculty COVID group, 2020-