

CURRICULUM VITAE

Auvinen, Petri Olli Viljami

Male

Born in Helsinki, Finland

20.6. 1960

Married, two children

CURRENT POSITION

Research Director, Institute of Biotechnology, University of Helsinki 1.5.2016-present
(<http://www.biocenter.helsinki.fi/bi/dnagen/>)

EDUCATION AND TRAINING

M. Sc., genetics, University of Turku, Finland 15.4. 1987

Ph. D., genetics, University of Turku, Finland 1.11 1990

Docent, (adjunct professor) virology, University of Helsinki, Finland 30.12.1998

Participation on EMBO advanced course on “DNA Microarrays: applications and data analysis”
EMBL, Heidelberg, Germany 21-28.10. 2000

PREVIOUS PROFESSIONAL APPOINTMENTS

Scientist, Department of Virology, University of Turku (M. Sc. and Ph. D.)
1.1. 1985-31.8. 1990

Scientist, Department Medical Biochemistry, University of Turku 1.9. 1990-31.7 1991

Junior research fellow of Finnish academy, Department of Medical Biochemistry, University of
Turku 1.8. 1991- 30.4. 1993

Junior research fellow of Finnish academy, EMBL, Heidelberg, Germany 1.5.
1993-31.7 1994

Research fellow, EU network grant (Kai Simons), EMBL, Heidelberg, Germany,
1.8. 1994-30.9 1994

Research fellow, EU Human Capital and Mobility Program, EMBL, Heidelberg, Germany
1.10. 1994-30.4. 1996

Senior research fellow, Institute of Biotechnology, University of Helsinki 1.5. 1996-
31.12 1999

Group leader, Institute of Biotechnology, University of Helsinki 1.1. 2000-31.12.
2007.

Laboratory Director, Institute of Biotechnology, University of Helsinki 1.1. 2008- 30.4. 2016

Research Director, Institute of Biotechnology, University of Helsinki 1.5.2016-present

POST DOCTORAL EDUCATION

Post doctoral fellow, Department of Medical Biochemistry, University of Turku (with Dr. Markku Jalkanen) 1.9. 1990-30.4. 1993

Post doctoral fellow, EMBL, Heidelberg, Germany (with Dr. Kai Simons) 1.5. 1993-30.4. 1996

TEACHING EXPERIENCE

Courses as lecturer and teacher

More than 160 lecture given to variable audience from school children to talks in international meetings.

4-8.6. 1990, RNA and protein purification course, Department of Virology, University of Turku, Turku, Finland, Turun yliopiston täydennyskoulutuskeskus.

1-11. 10 1995, Methods in cell biology, EMBO practical course, EMBL Heidelberg, Germany

14.4-6.5. 1997, Practical course in virology, Institute of Biotechnology, University of Helsinki.

6-17.3. 2000, Techniques in cell biology, Institute of Biotechnology, University of Helsinki, Viikki graduate school in biosciences.

15-17.3. 2005, Geenitekniikka 2: PCR tekniikat AEL and University of Helsinki.'

13.-17.8. 2007. Intensive course on modeling biological networks (T-61.5110). Jointly with Dr. Samuel Kaski and Dr. Tommi Jaakkola. (Helsinki University of Technology).

Courses organized

3-5. 12 1990. PCR course (laboratory work organization) Department of Virology, University of Turku, Turku, Finland, Turun yliopiston täydennyskoulutuskeskus.

26.11.-3.12 2001. Practical course on DNA microarray technology (3 credits), Institute of Biotechnology, University of Helsinki, Viikki graduate school in biosciences.

1.12.-10.12. 2003. Practical course on DNA microarray technology (3 credits), Institute of Biotechnology, University of Helsinki, Viikki graduate school in biosciences.

11.10-15.10, 15.11-16.11 2004. Data analysis for gene expression (2-5 credits), Institute of Biotechnology, University of Helsinki. Jointly with Dr. Samuel Kaski (Department of Computer science, University of Helsinki) and Madhuchanda Bhattacharjee (Department of Mathematics and Statistics, University of Helsinki).

18-29.4. 2005. DNA-microarrays-practical course (3 credits) Institute of Biotechnology, University of Helsinki, Helsinki graduate school in biotechnology and molecular biology.

15.9- 16.12 2005. High-throughput bioinformatics V P, (5/7 credits) (T-61.5050). Jointly with Dr. Samuel Kaski (Helsinki University of Technology).

18.1- 4.5 2007. High-throughput bioinformatics V P, (5/7 credits) (T-61.5050). Jointly with Dr. Janne Nikkilä, Alvis Brazma (Helsinki University of Technology).

14.4.-16.4. 2009. Next-generation sequencing workshop. Jointly with Dario Greco, Iiris Hovatta and Outi Monni.

7-12, 2009. Post-genomic research methods in microbiology (910115, 1 ECTS/3 ECTS) jointly with Kaarina Sivonen, Nisse Kalkkinen, Pekka Varmanen, Jouni Jokela and Nina Sipari.

14.1-15.1 and 18.1 2010. Next generation genomic; Advanced PhD-training course Yrjö Helariutta, Mikko Frilander, Liisa Holm and Tomi Mäkelä

19.1.-20.1. 2011. High-throughput sequencing (2 cr) together with Lars Paulin.

17.1.-18.1. 2012. High-throughput sequencing (2 cr) together with Lars Paulin.

6.9-7.9 2012 Mapping and assembly of Next generation sequencing data (together with Lars Paulin, Olli-Pekka Smolander and Kui Qian.

12.9-14.1 2012. Next generation genomics 2012, jointly with Yrjö Helariutta, Mikko Frilander, Liisa Holm, Ari Löytynoja, Alan Schulman and Tomi Mäkelä.

22.4-24.4 2013 Post graduate training school on "Functional Annotation of Genome Sequences in Agricultural species" jointly with Miguel Perez-Enciso (COST TD0801 activity) Helsinki, Finland.

10.9-12.9 2014. Next generation genomics 2014, jointly with Yrjö Helariutta, Mikko Frilander, Liisa Holm, Ari Löytynoja, Alan Schulman, Ari-Pekka Mähönen and Tomi Mäkelä.

24.-25.10. 2016. Next generation genomics 2016, jointly with Mikko Frilander, Liisa Holm, Ari Löytynoja, Alan Schulman, Ari-Pekka Mähönen, Susana Garcia, Dario Greco, Markku Varjosalo, Kaisa Nieminen).

23.10. -24.10. 2018. Next generation genomics 2018, jointly with Mikko Frilander, Alan Schulman, Susana Maria Garcia, Ari Löytynoja, Liisa Holm, Ari Pekka Mähönen, Yrjö Helariutta, Ville Mustonen, Craig Primmer)

Meetings organized

Clinical and molecular aspects of picornavirus infections (together with Dr. Timo Hyypiä and Dr. Thedi Ziegler) 25-26. 8. 1989, Turku, Finland.

Meeting COST 853, Agricultural biomarkers for array-technology WG1 nucleic acid micro-arrays. (local organization with Dr. Jari Valkonen) 16-17. 8. 2004, Helsinki, Finland.

Meeting COST TD0801 Statistical challenges on the 1000€ genome sequences in plants. (with Marco Bink, David Kreil, David Marshall, Miguel Perez-Enciso and Maria Dolores Ranchal) 4-5. 10 2009, Barcelona, Spain.

Workshop on RNA-Seq & Strategy Session on Joint grant proposals. COST TD0801 (with David Kreil, Paweł Łabaj, Smriti Shridhar) 24-26. 3 2011, Vienna, Austria.

5th StatSeq workshop, (COST TD0801 Statistical challenges on the 1000€ genome sequences in plants). (with Alan Schulman, Marco Bink) 24 - 26 April 2013, Helsinki, Finland.

SCIENTIFIC EXPERT FUNCTIONS

Member of the board of the Institute of Biotechnology, University of Helsinki 1999-2002.

External reviewer for 25 journals.

External reviewer for 10 M. Sc. Thesis.

Member of 39 graduate school doctoral thesis follow up groups in University of Helsinki and University of Turku during 2000-present.

Public appearance in Finnish Broadcasting company (YLE1) TV; Prisma studio 2.3 and 4.3. 2005, Hometalot (Mouldy houses).

Member of the evaluation panel for FUGE program (Functional genomics) in Norway 2-4. 5. 2006.

Reviewer of the book 'Understanding bioinformatics' by Zvelebi and Baum 2008, Garland science.

Member of the advisory board of Metropolia polytechnic (2009-2011).

Member of the managing committee of the COST action TD0801 (Statistical challenges on the 1000€ genome sequences in plants) and chair of the WG1.

Evaluating grant proposal for Estonian Research Council 2012, 2015.

Public appearance in Finnish Broadcasting company (YLE1) TV; Akuutti 29.4. 2014, Parkinsonin tauti saa alkunsa suolistosta? (Does Parkinson disease initiate in the gut?).

Helsingin Sanomat: Suomalaistutkijat selvittivät täpläverkkoperhosen perimän (Finnish scientists resolved the genome of Glanville fritillary). 9.9. 2014.

Member of an associate professor (tenure track) preparation group, field bioinformatics (University of Helsinki) 2014.

Evaluating grant proposal for Thierry Latran Foundation 2016

Evaluating grant proposal for Fonds National de la Recherche Luxembourg 2016

Saimaa ringed seal genome publication (14.11. 2016), TV interview /MTV, YLE) newspaper Helsingin Sanomat, Tiede, etc.).

Evaluating grant proposal for Parkinson's UK 2017

Member of the board of Doctoral Programme in Microbiology and Biotechnology (MBDP), University of Helsinki. 1.1. 2018-31.12. 2021.

Member of the board of the Finnish Museum of Natural history, Luonnontieteellinen keskusmuseo Luomus (1.4.2018 - 31.3.2022).

Recognized competence for

Qualified and competent for the post of Professor in Cell and molecular biology in the University of Helsinki, 2006.

Honours

Suomen Valkoisen Ruusun ansioristi from the President of Finland 2010

Golden medal for 30 years of work for science in Finland from the Federation of Finnish learned Societies (Tieteellisten seurojen valtuuskunta) and Universities Finland UNIFI (Suomen yliopistot ry UNIFI), 2015.

Finnish academy of science and letters, Suomalainen tiedeakatemia, elected member since 2017.

Supervised master thesis

Miia Viikari (Pitkäranta), Homesienilajiston määrittäminen kosteusvaurioisen rakennuksen materiaalinäytteestä molekyylibiologisin menetelmin. 2002, University of Helsinki.

Mirka Similä Perunan bakteeripatogeenien diagnosoiminen DNA-mikrosiruilla. (jointly with Jari Valkonen, Minna Pirhonen, Riitta Nissinen, Panu Somervuo) 2005, University of Helsinki.

Dario Greco Computational analysis of gene expression using Affymetrix. Compromising between biological significance and analytical robustness 2006, University of Helsinki.

Tuomas Raitila Differential Gene Expression in Human Brain and Testis Tissues 2007 University of Jyväskylä.

Sanna Laaksonen DNA-mikrosirujen kehittäminen kompostinäytteiden analysointiin. (jointly with Martin Romantschuk) 2007, University of Helsinki

Sari Hujanen Lihasspesifisten ekspressio- ja SNP mikrosirujen toiminnan testaaminen (jointly with Peter Hackman) 2008, University of Helsinki.

Kui Qian Gene expression meta-analysis of prefrontal cortex disorder (jointly with Dario Greco) 2009, University of Helsinki.

Joni Keto Lihasseenien isoformiekspressio tutkiminen alaraajan lihaksissa mikrosirupohjaisella menetelmällä (jointly with Peter Hackman and Panu Somervuo) 2011, University of Helsinki.

Velma Aho A comparison of bioinformatic workflows for the analysis of fungal amplicon sequence data. (jointly with Kaisa Koskinen) 2014, University of Helsinki.

Tuuli Pietilä Ihmisen papilloomaviruksen mikro-RNA:iden validointi. (jointly with Eeva Auvinen) 2015, University of Helsinki.

Muhammad S. Hasan Gut microbiome in gestational diabetes: A cross-sectional study of mothers and children. 2016, University of Helsinki.

Ilhan Cem Duru Genomic and transcriptomic analysis of *Lactobacillus rhamnosus* LC705, (jointly with Olli-Pekka Smolander) 2017, University of Helsinki.

Supervision of doctoral thesis (ongoing projects)

Juhana Kammonen, M.Sc. (2014-) (jointly with Dr. Jukka Jernvall)

Velma Aho, M.Sc. (2014-)

Ilhan Cem Duru, M.Sc. (2017-) (jointly with Olli-Pekka Smolander)

Supervised doctoral thesis

Roosa Laitinen 2006, The Gerbera cDNA microarray: a tool for large-scale identification of genes involved in flower development (jointly with Dr. Paula Elomaa and Dr. Teemu Teeri) (2002-2006).

Jenni Hultman 2009, Microbial diversity in the municipal composting process and development of detection methods. (jointly with Dr. Martin Romantschuk) (2004-2009).

Rashi Gupta 2009, Methods to improve gene signal: Application to cDNA microarrays (jointly with Dr. Elja Arjas) (2002-2009).

Dario Greco 2009, Gene expression: From microarrays to functional genomics. (2006-2009).

Elina Säde (nee Vihavainen) 2011, *Leuconostoc* spoilage of refrigerated, packaged foods. (jointly with Dr. Johanna Björkroth) (2004-2011).

Anu Planken 2012, Role of GDNF and its cross-talk with other growth factors in the dopaminergic system. (jointly with Dr. Mart Saarma and Dr. Jaan-Olle Andressoo) (2002-2012)

Miia Pitkäranta 2012, Molecular profiling of indoor microbial communities in moisture damaged and non-damaged buildings (jointly with Dr. Helena Rintala and with Dr. Martin Romantschuk) (2004-2012).

Jarmo Ritari 2012, Microbial identification by detection of ligation probes on DNA microarray. (2007-2012).

Kui Qian 2013, Bioinformatic analysis of HPV associated host microRNA functions and identification of viral microRNA (jointly with Dr. Dario Greco) (2010-2013).

Kaisa Koskinen 2013, Characterization of diverse microbial communities and application of novel detection techniques (jointly with Dr. Martin Romantschuk) (2008-2013).

Teija Ojala 2016, *Lactobacillus crispatus* and *Propionibacter freudenreichii*: A genomic and transcriptomic view. (jointly with Dr. Liisa Holm) (2011-2016).

Margarita Andreevskaya 2017, Ecological fitness and interspecies interactions of food-spoilage-associated lactic acid bacteria: Insights from genome analysis and transcriptome profiles. (jointly with Dr. Johanna Björkroth) (2011-2017).

Pedro Alexander Bento Pereira 2017, The human microbiome in Parkinson's disease and primary sclerosing cholangitis. (2012-2017).

Reviewer of doctoral thesis

Anja Paatero, 1999, Protein P4, the packaging NTPase of the dsRNA bacteriophage phi6.

Riina Männistö, 2003, Genome organization and transcriptional regulation of bacteriophage PM2.

Hanna Kivelä, 2004, Marine icosahedral membrane-containing ds DNA bacteriophage PM2: Virion structure and host cell penetration.

Petri Törönen, 2004, Analysis of gene expression data using clustering and functional classifications.

Katariina Hattula, 2007, Rab8 and Rab8-interacting proteins as players in cell polarization.

Anne Rantala, 2007, Evolution and detection of cyanobacterial hepatotoxin synthetase genes.

Laura Mannonen, 2011, Transcriptional analysis of persistent *Chlamydia pneumoniae* infection *in vitro*.

Tuomas Nikula, 2011, Transcriptional profiling of organ-specific autoimmunity in human

Hao Wang, 2013, Genome-based natural product biosynthetic gene cluster discovery: from sequencing to mining.

Shabih Shakeel, 2014, Human picornaviruses: uncoating, assembly and interaction with cellular receptors.

Ana Sencilo, 2014, Genomics of bacterial and archaeal virus isolates from extreme aquatic environments.

Tho Huu Ho, 2014, Development of amplification-based technologies for enrichment of nucleic acids with difficult sequences or low-abundance point mutations.

Alice Pawlowski, 2015, *Thermus* bacteriophage P23-77: key member of a novel, but ancient family of viruses from extreme environments.

Nicolas Détry, 2015, *In Silico* Genomics of Fungal Oxidoreductase Genes.

Bhagwan Yadav, 2016, Quantitative modelling and analysis of drug screening data for personalized cancer medicine.

Boris Vassilev, 2017, Studies on proteins influencing cancer progression and regulating endocytic lipid trafficking.

Angela Serra, 2017, Multi-View Learning and Data Integration for OMICs Data.

Chengyu Liu, 2017, Computational integrative analysis of biological networks in cancers.

Johanna Muurinen, 2017, Antibiotic resistance in agroecosystems.

Opponent of doctoral thesis

Janetta Hakovirta, 2008, Modern techniques in detection, identification and quantification of bacteria and peptides from foods. University of Helsinki, Finland.

Teemu Rinttilä, 2011, Real-time PCR – A molecular approach to investigate the role of intestinal microbiota in the pathophysiology of irritable bowel syndrome. University of Helsinki, Finland.

Lotta Krogius-Kurikka, 2011, Microbiota of healthy human gut and subjects with irritable bowel syndrome: Characterisation and effect of probiotic intervention. University of Helsinki, Finland.

Carolyn Kolmeder, 2015, Metaproteomics of the human intestinal tract to assess microbial functionality and interactions with the host. University of Helsinki, Finland.

Anders Jemt, 2017, Library preparation for high throughput DNA sequencing. KTH Royal Institute of Technology, Sweden.

Official examiner

Docentship (Adjunct professor) in Cell biology (Ari Ora) 2010, University of Helsinki.

Docentship (Adjunct professor) in Molecular microbiology (Minna Mäki) 2012, University of Helsinki.

Docentship (Adjunct professor) in Bioinformatics (Petri Törönen) 2015, University of Helsinki

Docentship (Adjunct professor) in Developmental Genetics (Kaia Achim) 2016, University of Helsinki

GRANTS

-Junior research fellow of Academy of Finland, 1991-1994.

-Research fellow, EU Human Capital and Mobility Program, 1994-1996.

- Tekes Gasicogenome project jointly with Department of Food and Environmental Hygiene, UH, 2003-2004, IB 268470, entire project 268 470 €.
- Tekes Compost project jointly with Department of Environmental Ecology, UH Lahti, 2003-2005, IB 155720€, entire project 347800€.
- EC BACDIVERS (2003-2005) by Dr. Kristina Lindström (Department of Applied Chemistry and Microbiology) Developing a genomic toolbox for exploring and exploiting bacterial biodiversity with EU funding 2003-2005 HU, 250000€, entire project 1 700 000€).
- Tekes consortium led by Dr. Maija Leinonen dealing with *C. pneumoniae* genomics, proteomics and diagnostics. Drug 2000 program, 2004-2005, IB 112713€, entire project 273088€.
- Tekes *Lactobacillus plantarum* and *Lb. paraplantarum* gene expression in different applications and growth conditions project with Department of Applied Biotechnology, University of Kuopio 2004-2005, IB 91058, entire project 454552€.
- Tekes Gasicogenome project II jointly with Department of Food and Environmental Hygiene, UH, 2005-2006, IB 223000€, entire project 344300 €.
- Ministry of Agriculture a consortium led by Dr. Valkonen a project in which three bacterial pathogens are studied using DNA microarrays and genome sequencing 2004-2006, IB 63000€, entire project 333000 €.
- Valio genome project with Dr. Lars Paulin 2005-2007, 607805€.
- Tekes consortium EEK-AGRI CHIP led by Dr. Valkonen a project in which three bacterial pathogens are studied using DNA microarrays and genome sequencing 2005-2006, IB 137811€, entire project 499974 €.
- Tekes consortium with National Public Health Institute led by Helena Rintala. DNA array for detecting microbes in houses, 2005-2006, entire project 162700 €.
- Tekes consortium led by Dr. Maija Leinonen dealing with *C. pneumoniae* genomics, proteomics and diagnostics. Drug 2000 program, 2005-2007, IB 108060, entire project 608451€.
- Helsinki University equipment funding 2006, computer cluster for bioinformatics, 105000€.
- Academy of Finland consortium with Dr. Johanna Björkroth MEATMETAGE concerning metagenomics and culture dependent identification of spoilage bacteria in meat. (Elvira program) 2007-2010, IB 155530€, entire project 307290 €.
- Tekes consortium with Dr. Johanna Björkroth MEATMETAGE concerning metagenomics and culture dependent identification of spoilage bacteria in meat. (Elvira program) 2007-2010, IB 129000€, entire project 334300 €.
- Ministry of Agriculture a consortium led by Dr. Valkonen a project in which three bacterial pathogens are studied using DNA microarrays and genome sequencing 2007-2009, entire project 248000€.
- Tekes consortium with Dr. Kristiina Kruus (VTT) METAGENOME: New industrial biocatalysts from environmental microbial metagenomes. (SYMBIO program) 2007-2009, IB 260 000€ entire project 1065 000 €.
- Maj ja Tor Nesslingin säätiö, Tarkan tunnistusmenetelmän kehittäminen ympäristön mikrobeille (1/3) 2008-2010, 26549,6 €.
- Helsinki University equipment funding 2007, 454 parallel sequencer, 180000€.
- EAKR, consortium with Dr. Martin Romantschuk and Dr. Lauri Arvola, Uudet ympäristömittausmenetelmät liiketoimintamahdollisuutena (YMLI). 2008-2011, IB 237000€ entire project 1391613€.
- EU consortium led by Dr. Kristiina Kruus, Disco, Targeted DISCOvery of novel cellulases and hemicellulases and their reaction mechanisms of lignocellulosic biomass 2008-2010, IB 138880€ entire project 4004460€.

- Maj ja Tor Nesslingin säätiö, Tarkan tunnistusmenetelmän kehittäminen ympäristön mikrobeille (2/3) 2008-2010, 27348,16 €.
- Tekes consortium Vesiturva-biologisten jätevesipuhdistuksen tehon parantaminen led by Dr. Martin Romantschuk (2009-2011) IB 132357€ .
- Maj ja Tor Nesslingin säätiö, Tarkan tunnistusmenetelmän kehittäminen ympäristön mikrobeille (3/3) 2008-2010, 29800 €.
- Academy of Finland and University of Helsinki FIRI infrastructure funding (2010) 1 425000 € (consortium).
- Tekes, Räätelöidyt pakkausteknologiat lihaa pilaavien maitohappobakteerien kasvun estossa, 2011-2014, 270500 €.
- Tekes, Genomics for tree biotechnology-GenoTree, Jointly with Jaakko Kangasjärvi and Yrjö Helariutta 2011-2014 entire project 992.000 €.
- CIMO training grant 2011-2012. 14400€
- Michael J Fox foundation, Intestinal and nasopharyngeal microbiota of patients with idiopathic Parkinson's disease, Jointly with Filip Scheperjans, Seppo Kaakkola, Eero Pekkonen, Jukka Lyytinen and Esko Kinnunen 2011-2012, 75000 \$.
- CIMO training grant 2012-2013. 7200€
- Academy of Finland, Regulation of growth and species succession patterns in psychrotrophic communities causing spoilage and safety risks in packaged foods GROWTHREG 2013-2017 674829€.
- Jane ja Aatos Erkko foundation. Saimaannorppa genomitutkimuksen mallilajiksi. Jointly with Jukka Jernvall. 2013-2016 1320000€.
- Michael J Fox foundation, The Microbiome in Parkinson's Disease: Role as a Potential Biomarker and its Relations to Environment, Genetics, and Disease Progression, Jointly with Filip Scheperjans, 2014-2016, 394000 \$.
- Academy of Finland FIRI 2015, Single cell consortium infrastructure funding. 329000 €
- CIMO training grant 2016-2017, 18000€.
- Päivikki and Sakari Sohlberg foundation. Ihmisen suolen mikrobiomi ja Parkinsonin tauti: Korrelaatioista biomarkkereihin ja kausaliteettiin. 2017, 40000€.
- Academy of Finland, ERAnet IB2: SAFEFood: Development of novel industrial process for safe, sustainable, and higher quality food, using biotechnology and cybernetic approach, 2017-2019. 450002€.
- CIMO training grant 2017, 3000€.
- Academy of Finland, Community defense responses in food spoilage lactic acid bacteria. CODELAB 2017-2021 350 000€.
- Jane ja Aatos Erkko foundation. Saimaannorppa genomitutkimuksen mallilajiksi. Jointly with Jukka Jernvall. 2017-2020 1238000€.
- EDUFI training grant 2018, 9000€ .

Scientific and societal impact of research

Number of original publications 164. **WoS** total citations 6119, h-index 39. **Scopus** total citations 6413, h-index 43. **Google Scholar** total citations 8998 h-index 50, i10-index 122. **Research gate** RG score 43.52, h-index 45. Orcid ID: <http://orcid.org/0000-0002-3947-4778>.

PUBLICATIONS

Petri Auvinen (20.06.1960)

A) Peer-reviewed original publications

1. Ziegler, T., Hukkanen, V., Arstila, P., Auvinen, P., Jalava, A. & Hyypiä, T. 1985. Typing of herpes simplex virus isolates with monoclonal antibodies and nucleic acid spot hybridization. *Journal of Virological Methods* 12:169-177.
2. Calisher, CH., Auvinen, P., Mitchell, CJ., Rice, CM., Hukkanen, V. & Hyypiä, T. 1987. Use of enzyme immunoassay and nucleic acid hybridization for detecting sindbis virus in infected mosquitoes. *Journal of Virological Methods* 17:229-236.
3. Hyypiä, T., Maaronen, M., Auvinen, P., Stålhandske, P., Pettersson, U., Stanway, G., Hughes, P., Ryan, M. & Almond, J. 1987. Nucleic acid sequence relationships between enterovirus serotypes. *Molecular and Cellular Probes* 1:169-176.
4. Auvinen, P., Stanway, G. & Hyypiä, T. 1989. Genetic diversity of enterovirus subgroups. *Archives of Virology* 104:175-186.
5. Hyypiä, T, Auvinen, P & Maaronen, M. 1989. Polymerase chain reaction for picornaviruses. *Journal of General Virology* 70:3261-3268.
6. Chang, K.H, Auvinen, P., Hyypiä, T. & Stanway, G. 1989. The nucleotide sequence of coxsackievirus A9 - Implications for receptor binding and enterovirus classification. *Journal of General Virology* 70:3269-3280.
7. Auvinen, P., Ziegler, T., Skern, T., Kuechler, E. Stanway, G. & Hyypiä, T. 1990. Identification of rhinoviruses by cDNA probes. *Journal of Virological Methods* 27:61-68.
8. Hukkanen, V., Ziegler, T., Kinnunen, L., Hirvonen, H., Auvinen, P. & Hovi, T. 1990. Genomic variation of herpes simplex virus type 2 isolates analyzed by hybridization after electroblotting from polyacrylamide gels. *Molecular and Cellular Probes* 4: 81-85.
9. Auvinen, P. 1990. Common and specific sequences in picornaviruses. *Molecular and Cellular Probes* 4: 273-284.
10. Auvinen, P. & Hyypiä, T. 1990. ECHO viruses include genetically distinct serotypes. *Journal of General Virology* 71: 2133-2139.
11. Kallajoki, M., Kalimo, H., Wesslén, L., Auvinen, P. & Hyypiä, T. 1990. In situ detection of enterovirus genomes in mouse myocardial tissue by ribonucleic acid probes. *Laboratory Investigation* 63: 669-675.
12. Hyypiä, T., Horsnell., Maaronen, M., Khan, M., Kalkkinen, N., Auvinen, P. Kinnunen, L. & Stanway, G. 1992. A distinct picornavirus group identified by sequence analysis. *Proceedings of the National Academy of Sciences U.S.A.* 89:8847-8851.

13. Hyypiä, T., Kallajoki, M., Maaronen, M., Stanway, G., Kandolf, R., Auvinen, P. & Kalimo, H. 1993. Pathogenetic differences between coxsackie A and B virus infections in newborn mice. *Virus Research* 27:71-78.
14. Auvinen, P., Mäkelä, M., Roivainen, M., Kallajoki, M., Vainionpää, R. & Hyypiä, T. 1993. Mapping of antigenic sites of coxsackievirus B3 by synthetic peptides. *Acta Pathologica, Microbiologica et Immunologica Scandinavica*. 101:517-528.
15. Vihinen, T., Auvinen, P., Alanen-Kurki, L. & Jalkanen, M. 1993. Structural organization and genomic sequence of mouse syndecan-1 gene. *Journal of Biological Chemistry* 268:17261-17269.
16. Eaton, S., Auvinen, P., Luo, L., Jan, Y.N. & Simons, K. 1995. CDC42 and Rac1 control different actin dependent processes in the Drosophila wing disc epithelium. *Journal of Cell Biology* 131: 151-164.
17. Vihinen, T., Määttä, A., Auvinen, P., Jaakkola, P., Pursiainen, U., Palgi, J. & Jalkanen, M. 1996. Functional characterization of mouse syndecan-1 promoter. *Journal of Biological Chemistry* 271: 12532-12541.
18. Peränen, J., Auvinen, P., Virta, H., Wepf, R. & Simons, K. 1996. Rab8 promotes polarized membrane transport through reorganization of actin and microtubules in fibroblasts. *Journal of Cell Biology* 135: 153-167.
19. Murphy, C., Saffrich, R., Grummt, M., Gournier, H., Rybin, V., Rubino, M., Auvinen, P., Lutcke, A., Parton, R., & Zerial, M. 1996. Endosome dynamics regulated by a Rho protein. *Nature* 384: 427-432.
20. Laakkonen, P., Auvinen, P., Kujala, P. & Kääriäinen, L. 1998. Alphavirus replicase protein NSP1 induces filopodia and rearrangement of actin filaments. *Journal of Virology* 72: 10265-10269.
21. Ahola, T., Lampio, A., Auvinen, P. & Kääriäinen, L. 1999. Semliki Forest virus mRNA capping enzyme requires association with anionic membrane phospholipids for activity. *EMBO Journal* 18: 3164-3172.
22. Merits, A., Kettunen, R., Mäkinen, K., Lampio, A., Auvinen, P., Kääriäinen, L. & Ahola, T. 1999. Virus-specific capping of tobacco mosaic virus RNA: Methylation of GTP prior to formation of covalent complex p126-m7 GMP. *FEBS letters* 455:45-48.
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D) Patents and invention disclosures

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