

Pekka Uimari
Professor, Supervisor for doctoral programme, Title of Docent
Department of Agricultural Sciences
Department of Agricultural Sciences
Helsinki One Health (HOH)
Animal Science Research
Doctoral Programme in Clinical Veterinary Medicine
Doctoral Programme in Sustainable Use of Renewable Natural Resources

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Employment

Professor

Department of Agricultural Sciences
University of Helsinki
Finland
1 Sep 2013 → present

Title of Docent

Department of Agricultural Sciences
University of Helsinki
Finland
1 Jan 2010 → present

Helsinki One Health (HOH)

University of Helsinki
HELSINGIN YLIOPISTO, Finland
1 Jan 2019 → present

Animal Science Research

University of Helsinki
University of Helsinki, Finland
1 Aug 2001 → present

Supervisor for doctoral programme

Doctoral Programme in Clinical Veterinary Medicine
University of Helsinki
Finland
1 Jan 2014 → present

Supervisor for doctoral programme

Doctoral Programme in Sustainable Use of Renewable Natural Resources
University of Helsinki
Helsinki, Finland
1 Jan 2014 → present

Research Manager

MTT

Finland

1 Nov 2011 → 31 Aug 2013

Principal scientist

MTT

Finland

1 Mar 2009 → 31 Aug 2018

Tutkija

Jurilab Ltd

Finland

1 Aug 2002 → 28 Feb 2009

Research outputs

Single-step genomic evaluation of Russian dairy cattle using internal and external information

Kudinov, A. A., Mäntysaari, E. A., Pitkänen, T. J., Saksa, E. I., Aamand, G. P., Uimari, P. & Strandén, I., 28 Nov 2021, (E-pub ahead of print) In: Journal of Animal Breeding and Genetics.

Estimation of social genetic effects on feeding behaviour and production traits in pigs

Kavlak, A. T., Strandén, E., Lidauer, M. H. & Uimari, P., Mar 2021, In: Animal. 15, 3, 8 p., 100168.

Deletion of porcine BOLL is associated with defective acrosomes and subfertility in Yorkshire boars

Noskova, A., Wurmser, C., Crysanto, D., Sironen, A., Uimari, P., Fries, R., Andersson, M. & Pausch, H., Dec 2020, In: Animal Genetics. 51, 6, p. 945-949 5 p.

Metafounder approach for single-step genomic evaluations of Red Dairy cattle

Kudinov, A. A., Mäntysaari, E. A., Aamand, G. P., Uimari, P. & Strandén, I., Jul 2020, In: Journal of Dairy Science. 103, 7, p. 6299-6310 12 p.

Identification of runs of homozygosity affecting female fertility and milk production traits in Finnish Ayrshire cattle

Martikainen, K., Koivula, M. & Uimari, P., 2 Mar 2020, In: Scientific Reports. 10, 1, 9 p., 3804.

Estimation of heritability of feeding behaviour traits and their correlation with production traits in Finnish Yorkshire pigs

Kavlak, A. T. & Uimari, P., Nov 2019, In: Journal of Animal Breeding and Genetics. 136, 6, p. 484-494 11 p.

Estimation of intrachromosomal inbreeding depression on female fertility using runs of homozygosity in Finnish Ayrshire cattle

Martikainen, K., Sironen, A. & Uimari, P., Dec 2018, In: Journal of Dairy Science. 101, 12, p. 11097-11107 11 p.

Assessing the genetic differentiation of Holstein cattle herds in the Leningrad region using F_{st} statistics

Smaragdov, M. G., Kudinov, A. A. & Uimari, P., 2018, In: Agricultural and Food Science. 27, 2, p. 96-101 6 p.

Developing a genetic evaluation system for milk traits in Russian black and white dairy cattle

Kudinov, A. A., Juga, J., Mäntysaari, E. A., Strandén, I., Saksa, E. I., Smaragdov, M. G. & Uimari, P., 2018, In: Agricultural and Food Science. 27, 2, p. 85-95 11 p.

Estimation of inbreeding depression on female fertility in the Finnish Ayrshire population

Martikainen, K., Tyrisevä, A. M., Matilainen, K., Pösö, J. & Uimari, P., Oct 2017, In: Journal of Animal Breeding and Genetics. 134, 5, p. 383-392 10 p.

Genome-wide SNP data unveils the globalization of domesticated pigs

Yang, B., Cui, L., Perez-Enciso, M., Traspov, A., Crooijmans, R. P. M. A., Zinovieva, N., Schook, L. B., Archibald, A., Gathayak, K., Knorr, C., Triantafyllidis, A., Alexandri, P., Semiadi, G., Hanotte, O., Dias, D., Dovc, P., Uimari, P., Iacolina, L., Scandura, M., Groenen, M. A. M. & 2 others, Huang, L. & Megens, H-J., 21 Sep 2017, In: *Genetics Selection Evolution*. 49, 15 p., 71.

Novel harmful recessive haplotypes for reproductive traits in pigs

Haggman, J. & Uimari, P., Apr 2017, In: *Journal of Animal Breeding and Genetics*. 134, 2, p. 129-135 7 p.

Whole-genome association analysis of pork meat pH revealed three significant regions and several potential genes in Finnish Yorkshire pigs

Verardo, L. L., Sevón-Aimonen, M-L., Serenius, T., Hietakangas, V. & Uimari, P., 13 Feb 2017, In: *BMC Genetics*. 18, 15 p., 13.

Lypsykarjan genomisen valinta

Juga, J. K., Sillanpää, M. J., Mäntysaari, E. A., Mäki-Tanila, A. V. & Uimari, J. P., 2017, *Maailma muuttuu - muuttuuko maatalous?* Seppänen, M. & Kymäläinen, H-R. (eds.). 2 ed. Helsinki: Unigrafia, p. 220 - 226 7 p.

Upgrading Dairy Cattle Evaluation System in Russian Federation

Kudinov, A. A., Juga, J. K., Uimari, J. P., Mäntysaari, E. A., Stranden, I. J., Plemyashov, K. V., Saksa, E. I. & Smaragdov, M. G., 2017, In: *Interbull Bulletin*. 51, p. 67-74 8 p.

Heritability of hypothyroidism in the Finnish Hovawart population

Åhlgren, J. K. & Uimari, J. P., 1 Jun 2016, In: *Acta Veterinaria Scandinavica*. 58, 5 p., 39.

A combination of two variants in PRKAG3 is needed for a positive effect on meat quality in pigs

Uimari, P. & Sironen, A., 28 Feb 2014, In: *BMC Genetics*. 15, 9 p., 29.

Preface

Uimari, P., 2014, In: *Agricultural and Food Science*. 23, 1, p. 1 1 p.

Reliability of Genomic Selection of Reproduction Traits in Finnish Yorkshire Pig Breed

Uimari, P., Sevón-Aimonen, M-L. & Serenius, T., 2014, *10th World Congress of Genetics Applied to Livestock Production: Abstracts and Proceedings*. [Vancouver]: World Congress on Genetics Applied to Livestock Production, WCGALP, 3 p.

Ectopic KIT copy number variation underlies impaired migration of primordial germ cells associated with gonadal hypoplasia in cattle (*Bos taurus*)

Venhoranta, H., Pausch, H., Wysocki, M., Szczerbal, I., Hänninen, R., Taponen, J., Uimari, P., Flisikowski, K., Lohi, H., Fries, R., Switonski, M. & Andersson, M., 2013, In: *PLoS One*. 8, 9, 11 p., e75659.

Evidence for three highly significant QTL for meat quality traits in the Finnish Yorkshire pig breed.

Uimari, P., Sironen, A. & Sevón-Aimonen, M-L., 2013, In: *Journal of Animal Science*. 2013, 91, p. 2001-2011

Heritability of sow longevity and lifetime prolificacy in Finnish Yorkshire and Landrace pigs.

Uimari, P. & Sevón-Aimonen, M-L., 2013, In: *Agricultural and Food Science*. 22, p. 325-330

L1 insertion within SPEF2 gene is associated with increased litter size in the Finnish Yorkshire population.

Sironen, A., Uimari, P., Iso-Touru, T. & Vilkki, J., 2012, In: *Journal of Animal Breeding and Genetics*. 129, p. 92-97

Comparison of different DNA extraction methods from hair root follicles to genotype Finnish Landrace boars with the Illumina PorcineSNP60 BeadChip

Sironen, A., Uimari, P. & Vilkki, J., Jun 2011, In: *Agricultural and Food Science*. 20, 2, p. 143-150 8 p.

Extent of linkage disequilibrium and effective population size in Finnish Landrace and Finnish Yorkshire pig breeds
Uimari, P. & Tapio, M., Mar 2011, In: Journal of Animal Science. 89, 3, p. 609-614 6 p.

Whole-genome SNP association analysis of reproduction traits in the Finnish Landrace pig breed.
Uimari, P., Sironen, A. & Sevón-Aimonen, M-L., 2011, In: Genetics Selection Evolution. 43, p. 42

Knobbed acrosome defect is associated with a region containing the genes STK17b and HECW2 on porcine chromosome 15

Sironen, A., Uimari, P., Nagy, S., Paku, S., Andersson, M. & Vilkki, J., 9 Dec 2010, In: BMC Genomics. 11, art. 699, 8 p., 699.

Genetic parameters for bone strength, osteochondrosis and meat percentage in Finnish Landrace and Yorkshire pigs
Storskrubb, A., Sevón-Aimonen, M. -L. & Uimari, P., Aug 2010, In: Animal. 4, 8, p. 1319-1324 6 p.

Effect of polymorphisms in candidate genes on reproduction traits in Finnish pig populations

Sironen, A. I., Uimari, P., Serenius, T., Mote, B., Rothschild, M. & Vilkki, J., Mar 2010, In: Journal of Animal Science. 88, 3, p. 821-827 7 p.

Spermine analogue-regulated expression of spermidine/spermine N1-acetyltransferase and its effects on depletion of intracellular polyamine pools in mouse fetal fibroblasts

Uimari, A., Keinänen, T. A., Karppinen, A., Woster, P., Uimari, P., Janne, J. & Alhonen, L., 15 Aug 2009, In: Biochemical Journal. 422, p. 101-109 9 p.

Type 2 diabetes whole genome association study in four populations: the DiaGen consortium

Salonen, J. T., Uimari, P., Aalto, J-M., Pirskanen, M., Kaikkonen, J., Todorova, B., Hyypönen, J., Korhonen, VP., Asikainen, J., Devine, C., Tuomainen, TP., Luedemann, J., Nauck, M., Kerner, W., Stephens, RH., New, JP., Ollier, WE., Gibson, JM., Payton, A., Horan, MA. & 8 others, Pendleton, N., Mahoney, W., Meyre, D., Deplanque, J., Froguel, P., Luzzatto, O., Yakir, B. & Darvasi, A., Sep 2007, In: Diabetologia. 50, p. S40-S40 1 p.

Genome-wide linkage disequilibrium from 100,000 SNPs in the East Finland founder population

Uimari, P., Kontkanen, O., Visscher, PM., Pirskanen, M., Fuentes, R. & Salonen, JT., Jun 2005, In: Twin Research and Human Genetics. 8, 3, p. 185-197 13 p.

A novel mechanism for endothelial dysfunction in pregnancy: role of DDAH1 haplotypes in preeclampsia

Akbar, F., Heinonen, S., Pirskanen, M., Uimari, P., Tuomainen, T-P. & Salonen, JT., 2005, In: Molecular Human Reproduction. 11, p. 73-77

New paraoxonase 1 polymorphism I102V and the risk of prostate cancer in Finnish men

Marchesani, M., Hakkarainen, A., Tuomainen, TP., Kaikkonen, J., Pukkala, E., Uimari, P., Seppala, E., Matikainen, M., Kallioniemi, OP., Schleutker, J., Lehtimäki, T. & Salonen, JT., 4 Jun 2003, In: Journal of the National Cancer Institute. 95, 11, p. 812-818 7 p.

Chromosome 19q13 and multiple sclerosis susceptibility in Finland: a linkage and two-stage association study

Reunanen, K., Finnila, S., Laaksonen, M., Hiekkalinna, T., Sumelahti, ML., Wikstrom, J., Pastinen, T., Kuokkanen, S., Saarela, J., Uimari, P., Ruutiainen, J., Ilonen, J., Peltonen, L. & Tienari, PJ., May 2002, In: Journal of Neuroimmunology. 126, 1-2, p. 134-142 9 p., PII S0165-5728(02)00051-6.

Multiple QTL mapping in related plant populations via a pedigree-analysis approach

Bink, MCAM., Uimari, P., Sillanpää, MJ., Janss, LLG. & Jansen, RC., Apr 2002, In: Theoretical and Applied Genetics. 104, 5, p. 751-762 12 p.

Mapping of an immotile short tail sperm defect in the Finnish Yorkshire on porcine Chromosome 16

Sironen, A. I., Andersson, M., Uimari, P. & Vilkki, J., 2002, In: Mammalian Genome. 13, p. 45-49 5 p.

Multiple QTL mapping in related plant populations via a pedigree-analysis approach

Bink, M. C. A. M., Uimari, P., Sillanpää, M. J., Janss, L. L. G. & Jansen, R. C., 2002, In: Theoretical and Applied Genetics. 104, 5, p. 751-762

Bayesian oligogenic analysis of quantitative and qualitative traits in general pedigrees

Uimari, P. & Sillanpää, M. J., Nov 2001, In: Genetic Epidemiology. 21, 3, p. 224-242 19 p.

Respiratory distress syndrome: evaluation of genetic susceptibility and protection by transmission disequilibrium test

Haataja, R., Marttila, R., Uimari, P., Lofgren, J., Ramet, M. & Hallman, M., Sep 2001, In: Human Genetics. 109, 3, p. 351-355 5 p.

Bayesian association mapping for quantitative traits in a mixture of two populations

Sillanpää, M. J., Kilpikari, R., Ripatti, S., Onkamo, P. & Uimari, P., 2001, In: Genetic Epidemiology. 21, Suppl. 1, p. S692-S699

Bayesian association mapping for quantitative traits in a mixture of two populations

Sillanpää, M., Kilpikari, R., Ripatti, S., Onkamo, P. & Uimari, P., 2001, In: Genetic Epidemiology. 21, p. S692-S699 8 p.

Bayesian oligogenic analysis of quantitative and qualitative traits in general pedigrees

Uimari, P. & Sillanpää, M. J., 2001, In: Genetic Epidemiology. 21, 3, p. 224-242

Candidate gene regions and genetic heterogeneity in gluten sensitivity

Holopainen, P., K, M., Uimari, P., Collin, P., Mäki, M. & Partanen, J., 2000, In: Gut. 48, 5, p. 696-701 6 p.

The effect of using different culling regimens on genetic response with two-trait, two-stage selection in a nucleus broiler stock

Mehrabani-Yeganeh, H., Gibson, J.P. & Uimari, P., Jul 1999, In: Poultry Science. 78, 7, p. 931-936 6 p.

A Bayesian MCMC Approach to Map Disease Genes in Simulated GAW11 data

Uimari, P., Pitkäniemi, J. M. & Onkamo, P., 1999, In: Genetic Epidemiology. 17, Suppl. 1, p. S743-S748 8 p.

Mapping quantitative trait loci for milk production and health of dairy cattle in a large outbred pedigree

Zhang, Q., Boichard, D., Hoeschele, I., Ernst, C., Eggen, A., Murkve, B., Pfister-Genskow, M., Witte, L.A., Grignola, F.E., Uimari, P., Thaller, G. & Bishop, M.D., Aug 1998, In: Genetics. 149, 4, p. 1959-1973 15 p.

The value of crossbreeding information in selection of poultry under a dominance model

Uimari, P. & Gibson, J.P., Apr 1998, In: Animal Science. 66, p. 519-528 10 p.

Advances in statistical methods to map quantitative trait loci in outbred populations

Hoeschele, I., Uimari, P., Grignola, F.E., Zhang, Q. & Gage, K.M., Nov 1997, In: Genetics. 147, 3, p. 1445-1457 13 p.

Mapping-linked quantitative trait loci using Bayesian analysis and Markov chain Monte Carlo algorithms

Uimari, P. & Hoeschele, I., Jun 1997, In: Genetics. 146, 2, p. 735-743 9 p.

Sensitivity of segregation analysis to data structure and transformation: A case study of trypanotolerance in mice

Uimari, P., Kemp, S.J., Dekkers, J.C.M., Teale, A.J. & Kennedy, B.W., Apr 1997, In: Heredity. 78, p. 424-432 9 p.

The use of multiple markers in a Bayesian method for mapping quantitative trait loci

Uimari, P., Thaller, G. & Hoeschele, I., Aug 1996, In: Genetics. 143, 4, p. 1831-1842 12 p.

Power and sensitivity of some simple tests for detection of major genes in outbred populations

Uimari, P., Kennedy, BW. & Dekkers, JCM., Feb 1996, In: Journal of Animal Breeding and Genetics. 113, 1, p. 17-28 12 p.

Power and parameter estimation of complex segregation analysis under a finite locus model

Uimari, P., Kennedy, BW. & Dekkers, JCM., 1996, In: Genetics Selection Evolution. 28, 4, p. 345-358 14 p.

Relationship between bull dam herd characteristics and bias in estimated breeding value of bull

Uimari, P. & Mantysaari, EA., 1995, In: Agricultural science in Finland. 4, 5-6, p. 463-472 10 p.

REPEATABILITY AND BIAS OF ESTIMATED BREEDING VALUES FOR DAIRY BULLS AND BULL DAMS CALCULATED FROM ANIMAL-MODEL EVALUATIONS

UIMARI, P. & MANTYSAARI, EA., Oct 1993, In: Animal production. 57, p. 175-182 8 p.

ACCURACY OF GENETIC EVALUATIONS IN DOMINANCE GENETIC MODELS ALLOWING FOR INBREEDING

Uimari, P. & Mäki-Tanila, A., Dec 1992, In: Journal of Animal Breeding and Genetics. 109, 6, p. 401-407 7 p.

Activities**Suranaree University of Technology**

Pekka Uimari (Visiting researcher)

15 Dec 2018 → 20 Dec 2018

Vastaväittäjä Kiinan Maatalousyliopisto

Pekka Uimari (Supervisor)

23 Oct 2018

Alper Tuna Kaviak PhD thesis supervision

Pekka Uimari (Supervisor)

2018 → ...

Canadian Journal of Animal Science (Journal)

Pekka Uimari (Reviewer)

2017 → ...

Vastaväittäjä SLU, Ruotsi

Pekka Uimari (Opponent)

2 Dec 2016

Väitöskirjan esitarkastaja, HY

Pekka Uimari (Pre-examiner)

1 Aug 2016 → 15 Sep 2016

Vastaväittäjä Aarhusin Yliopisto, Tanska

Pekka Uimari (Opponent)

29 Feb 2016

Katja Martikainen PhD thesis supervision

Asko Mäki-Tanila (Supervisor) & Jukka Pekka Uimari (Supervisor)

2016 → ...

Vastaväittäjä Wageningenin Yliopisto

Pekka Uimari (Opponent)

9 Dec 2015

66th Annual Meeting of the European Federation of Animal Science (EAAP)

Pekka Uimari (Attendee)

30 Aug 2015 → 4 Sep 2015

Faculty of Social Sciences Gender Studies Teaching Basket (External organisation)

Pekka Uimari (Member)

May 2015 → 2016

Scientific Reports (Journal)

Pekka Uimari (Member of editorial board)

1 Nov 2014 → ...

Maa- ja Elintarvitalouden Tutkimuslaitos (External organisation)

Pekka Uimari (Expert member)

Oct 2014 → ...

10th World Congress on Genetics Applied to Livestock Production

Pekka Uimari (Attendee)

17 Aug 2014 → 22 Aug 2014

NOVA Kurssi Advanced quantitative genetics for animal breeding

Pekka Uimari (Chair of organizing committee)

9 Jun 2014 → 14 Jun 2014

Agricultural and Food Science (Journal)

Pekka Uimari (Editor in chief)

1 Jan 2014 → 31 Dec 2017

Vastaväittäjä SLU, Ruotsi

Pekka Uimari (Opponent)

5 Dec 2013

Projects