

Publication List

Matti Pirinen, University of Helsinki

2023-11-24

- H-index = 61 (Web of Science), 57 (Google Scholar)
- Citations = 22,717 (Web of Science), 23,646 (Google Scholar)

The publication list below includes only publications ($N = 105$) where M. Pirinen is an individually-named author in the main author list of the publication. Thus, it excludes the publications where the authorship of M. Pirinen is only through a membership in a consortium.

1. Rämö JT, Kiiskinen T, Seist R, Krebs K, Kanai M, Karjalainen J, Kurki M, Hämäläinen E, Häppölä P, Havulinna AS, Hautakangas H; FinnGen; Mägi R, Palta P, Esko T, Metspalu A, Pirinen M, Karczewski KJ, Ripatti S, Milani L, Stankovic KM, Mäkitie A, Daly MJ, Palotie A. Genome-wide screen of otosclerosis in population biobanks: 27 loci and shared associations with skeletal structure. *Nat Commun.* 2023 Jan 18;14(1):157. DOI:10.1038/s41467-022-32936-3, PMID:36653343, PMCID:PMC9849444.
2. Saarentaus EC, Karjalainen J, Rämö JT, Kiiskinen T, Havulinna AS, Mehtonen J, Hautakangas H, Ruotsalainen S, Tamlander M, Mars N; FINNGEN; Toppila-Salmi S, Pirinen M, Kurki M, Ripatti S, Daly M, Palotie T, Mäkitie A, Palotie A. Inflammatory and infectious upper respiratory diseases associate with 41 genomic loci and type 2 inflammation. *Nat Commun.* 2023 Jan 18;14(1):83. DOI: 10.1038/s41467-022-33626-w, PMID:36653354, PMCID:PMC9849224.
3. Kiiskinen T, Helkkula P, Krebs K, Karjalainen J, Saarentaus E, Mars N, Lehisto A, Zhou W, Corradioli M, Jukarainen S, Rämö JT, Mehtonen J, Veerapen K, Räsänen M, Ruotsalainen S, Maasha M; FinnGen; Niiranen T, Tuomi T, Salomaa V, Kurki M, Pirinen M, Palotie A, Daly M, Ganna A, Havulinna AS, Milani L, Ripatti S. Genetic predictors of lifelong medication-use patterns in cardiometabolic diseases. *Nat Med.* 2023 Jan;29(1):209-218. DOI:10.1038/s41591-022-02122-5, PMID: 36653479, PMCID:PMC9873570.
4. Leinonen JT, Mars N, Lehtonen LE, Ahola-Olli A, Ruotsalainen S, Lehtimäki T, Kähönen M, Raitakari O; FinnGen Consortium; Piltonen T, Daly M, Tuomi T, Ripatti S, Pirinen M, Tukiainen T. Genetic analyses implicate complex links between adult testosterone levels and health and disease. *Commun Med (Lond).* 2023 Jan 18;3(1):4. DOI:10.1038/s43856-022-00226-0, PMID:36653534, PMCID:PMC9849476.
5. Almangush A, Alabi RO, De Keukeleire S, Mäkitie AA, Pirinen M, Leivo I. Clinical significance of overall assessment of tumor-infiltrating lymphocytes in oropharyngeal cancer: A meta-analysis. *Pathol Res Pract.* 2023 Mar;243:154342. DOI:10.1016/j.prp.2023.154342, PMID:36758415, PMCID: none.
6. Pirinen M. linemodels: clustering effects based on linear relationships. *Bioinformatics.* 2023 Mar 1;39(3):btad115. DOI:10.1093/bioinformatics/btad115, PMID:36864614, PMCID:PMC10005595.
7. Kaivola K, Pirinen M, Laaksovirta H, Jansson L, Rautila O, Launes J, Hokkanen L, Lahti J, Eriksson JG, Strandberg TE, FinnGen, Tienari PJ. C9orf72 hexanucleotide repeat allele tagging SNPs: Associations with ALS risk and longevity. *Front Genet.* 2023 Mar 1;14:1087098. DOI:10.3389/fgene.2023.1087098, PMID:36936421, PMCID:PMC10014923.

8. Kivimäki M, Livingston G, Singh-Manoux A, Mars N, Lindbohm JV, Pentti J, Nyberg ST, Pirinen M, Anderson EL, Hingorani AD, Sipilä PN. Estimating Dementia Risk Using Multifactorial Prediction Models. *JAMA Netw Open*. 2023 Jun 1;6(6):e2318132. DOI:10.1001/jamanetworkopen.2023.18132, PMID:37310738, PMCID:PMC10265307.
9. Winsvold BS, Harder AVE, Ran C, Chalmer MA, Dalmaso MC, Ferkingstad E, Tripathi KP, Bacchelli E, Børte S, Fourier C, Petersen AS, Vijfhuizen LS, Magnusson SH, O'Connor E, Bjornsdottir G, Häppölä P, Wang YF, Callesen I, Kelderman T, Gallardo VJ, de Boer I, Olofsgård FJ, Heinze K, Lund N, Thomas LF, Hsu CL, Pirinen M, Hautakangas H, Ribasés M, Guerzoni S, Sivakumar P, Yip J, Heinze A, Küçükali F, Ostrowski SR, Pedersen OB, Kristoffersen ES, Martinsen AE, Artigas MS, Lagrata S, Cainazzo MM, Adebimpe J, Quinn O, Göbel C, Cirkel A, Volk AE, Heilmann-Heimbach S, Skoghol AH, Gabrielsen ME, Wilbrink LA, Danno D, Mehta D, Guðbjartsson DF; HUNT All-In Headache, The International Headache Genetics Consortium, DBDS Genomic Consortium; Rosendaal FR, Willems van Dijk K, Froncsek R, Wagner M, Scherer M, Göbel H, Sleegers K, Sveinsson OA, Pani L, Zoli M, Ramos-Quiroga JA, Dardiotis E, Steinberg A, Riedel-Heller S, Sjöstrand C, Thorgeirsson TE, Stefansson H, Southgate L, Trembath RC, Vandrovcova J, Noordam R, Paemeleire K, Stefansson K, Fann CS, Waldenlind E, Tronvik E, Jensen RH, Chen SP, Houlden H, Terwindt GM, Kubisch C, Maestrini E, Vikelis M, Pozo-Rosich P, Belin AC, Matharu M, van den Maagdenberg AMJM, Hansen TF, Ramirez A, Zwart JA; International Consortium for Cluster Headache Genetics. Cluster Headache Genomewide Association Study and Meta-Analysis Identifies Eight Loci and Implicates Smoking as Causal Risk Factor. *Ann Neurol*. 2023 Oct;94(4):713-726. DOI:10.1002/ana.26743, PMID:37486023, PMCID: none.
10. Ottensmann L, Tabassum R, Ruotsalainen SE, Gerl MJ, Klose C, Widén E; FinnGen; Simons K, Ripatti S, Pirinen M. Genome-wide association analysis of plasma lipidome identifies 495 genetic associations. *Nat Commun*. 2023 Oct 31;14(1):6934. DOI:10.1038/s41467-023-42532-8, PMID:37907536, PMCID:PMC10618167.
11. Wahab A, Onkamo O, Pirinen M, Almangush A, Salo T. The budding and depth of invasion model in oral cancer: A systematic review and meta-analysis. *Oral Dis*. 2022 Mar;28(2):275-283. DOI: 10.1111/odi.13671, PMID:33031610, PMCID: none.
12. Bahrami S, Hindley G, Winsvold BS, O'Connell KS, Frei O, Shadrin A, Cheng W, Bettella F, Rødevand L, Odegaard KJ, Fan CC, Pirinen MJ, Hautakangas HM; HUNT All-In Headache; Dale AM, Djurovic S, Smeland OB, Andreassen OA. Dissecting the shared genetic basis of migraine and mental disorders using novel statistical tools. *Brain*. 2022 Mar 29;145(1):142-153. DOI:10.1093/brain/awab267, PMID: 34273149, PMCID:PMC8967089.
13. Häppölä P, Gormley P, Nuottamo ME, Artto V, Sumelahti ML, Nissilä M, Keski-Säntti P, Ilmavirta M, Kaunisto MA, Hämäläinen EI, Ripatti S, Pirinen M, Wessman M, Palotie A, Kallela M; International Headache Genetics Consortium (IHGC). Polygenic risk provides biological validity for the ICHD-3 criteria among Finnish migraine families. *Cephalgia*. 2022 Apr;42(4-5):345-356. DOI: 10.1177/03331024211045651, PMID:34648375, PMCID:PMC8988286.
14. Hautakangas H, Winsvold BS, Ruotsalainen SE, Bjornsdottir G, Harder AVE, Kogelman LJA, Thomas LF, Noordam R, Benner C, Gormley P, Artto V, Banasik K, Bjornsdottir A, Boomsma DI, Brumpton BM, Burgdorf KS, Buring JE, Chalmer MA, de Boer I, Dichgans M, Erikstrup C, Färkkilä M, Gabrielsen ME, Ghanbari M, Hagen K, Häppölä P, Hottenga JJ, Hrafnssdottir MG, Hveem K, Johnsen MB, Kähönen M, Kristoffersen ES, Kurth T, Lehtimäki T, Lighart L, Magnusson SH, Malik R, Pedersen OB, Pelzer N, Penninx BWJH, Ran C, Ridker PM, Rosendaal FR, Sigurdardottir GR, Skoghol AH, Sveinsson OA, Thorgeirsson TE, Ullum H, Vijfhuizen LS, Widén E, van Dijk KW; International Headache Genetics Consortium; HUNT All-in Headache; Danish Blood Donor Study Genomic Cohort; Aromaa A, Belin AC, Freilinger T, Ikram MA, Järvelin MR, Raitakari OT, Terwindt GM, Kallela M, Wessman M, Olesen J, Chasman DI, Nyholt DR, Stefánsson H, Stefansson K, van den Maagdenberg AMJM, Hansen TF, Ripatti S, Zwart JA, Palotie A, Pirinen M. Genome-wide analysis of 102,084 migraine cases identifies 123 risk loci and subtype-specific risk alleles. *Nat Genet*. 2022 Feb;54(2):152-160. DOI:10.1038/s41588-021-00990-0, PMID:35115687, PMCID:PMC8837554.

15. Nuottamo ME, Häppälä P, Artto V, Hautakangas H, Pirinen M, Hiekkalinna T, Ellonen P, Lepistö M, Hämäläinen E; International Headache Genetics Consortium (IHGC), FinnGenConsortium; Siren A, Lehesjoki AE, Kallela M, Palotie A, Kaunisto MA, Wessman M. NCOR2 is a novel candidate gene for migraine-epilepsy phenotype. *Cephalalgia*. 2022 Jun;42(7):631-644. DOI:10.1177/03331024211068065, PMID:35166138, PMCID: none.
16. Elovainio M, Lahti J, Pirinen M, Pulkki-Råback L, Malmberg A, Lipsanen J, Virtanen M, Kivimäki M, Hakulinen C. Association of social isolation, loneliness and genetic risk with incidence of dementia: UK Biobank Cohort Study. *BMJ Open*. 2022 Feb 23;12(2):e053936. DOI:10.1136/bmjopen-2021-053936, PMID:35197341, PMCID:PMC8867309.
17. Tamlander M, Mars N, Pirinen M; FinnGen; Widén E, Ripatti S. Integration of questionnaire-based risk factors improves polygenic risk scores for human coronary heart disease and type 2 diabetes. *Commun Biol*. 2022 Feb 23;5(1):158. DOI:10.1038/s42003-021-02996-0, PMID:35197564, PMCID:PMC8866413.
18. Trubetskoy V, Pardiñas AF, Qi T, Panagiotaropoulou G, Awasthi S, Bigdeli TB, Bryois J, Chen CY, Dennison CA, Hall LS, Lam M, Watanabe K, Frei O, Ge T, Harwood JC, Koopmans F, Magnusson S, Richards AL, Sidorenko J, Wu Y, Zeng J, Grove J, Kim M, Li Z, Voloudakis G, Zhang W, Adams M, Agartz I, Atkinson EG, Agerbo E, Al Eissa M, Albus M, Alexander M, Alizadeh BZ, Alptekin K, Als TD, Amin F, Arolt V, Arrojo M, Athanasiu L, Azevedo MH, Bacanu SA, Bass NJ, Begemann M, Belliveau RA, Bene J, Benyamin B, Bergen SE, Blasi G, Bobes J, Bonassi S, Braun A, Bressan RA, Bromet EJ, Bruggeman R, Buckley PF, Buckner RL, Bybjerg-Grauholt J, Cahn W, Cairns MJ, Calkins ME, Carr VJ, Castle D, Catts SV, Chambert KD, Chan RCK, Chaumette B, Cheng W, Cheung EFC, Chong SA, Cohen D, Consoli A, Cordeiro Q, Costas J, Curtis C, Davidson M, Davis KL, de Haan L, Degenhardt F, DeLisi LE, Demontis D, Dickerson F, Dikeos D, Dinan T, Djurovic S, Duan J, Ducci G, Dudbridge F, Eriksson JG, Fañanás L, Faraone SV, Fiorentino A, Forstner A, Frank J, Freimer NB, Fromer M, Frustaci A, Gadelha A, Genovese G, Gershon ES, et al. Mapping genomic loci implicates genes and synaptic biology in schizophrenia. *Nature*. 2022 Apr;604(7906):502-508. DOI:10.1038/s41586-022-04434-5, PMID:35396580, PMCID:PMC9392466.
19. Mars N, Kerminen S, Feng YA, Kanai M, Läll K, Thomas LF, Skogholt AH, Della Briotta Parolo P; Biobank Japan Project; FinnGen; Neale BM, Smoller JW, Gabrielsen ME, Hveem K, Mägi R, Matsuda K, Okada Y, Pirinen M, Palotie A, Ganna A, Martin AR, Ripatti S. Genome-wide risk prediction of common diseases across ancestries in one million people. *Cell Genom*. 2022 Apr 13;2(4):None. DOI:10.1016/j.xgen.2022.100118, PMID:35591975, PMCID:PMC9010308.
20. Jukarainen S, Kiiskinen T, Kuitunen S, Havulinna AS, Karjalainen J, Cordioli M, Rämö JT, Mars N; FinnGen; Samocha KE, Ollila HM, Pirinen M, Ganna A. Genetic risk factors have a substantial impact on healthy life years. *Nat Med*. 2022 Sep;28(9):1893-1901. DOI:10.1038/s41591-022-01957-2, PMID:36097220, PMCID:PMC9499866.
21. Tabassum R, Ruotsalainen S, Ottensmann L, Gerl MJ, Klose C, Tukiainen T, Pirinen M, Simons K, Widén E, Ripatti S. Lipidome- and Genome-Wide Study to Understand Sex Differences in Circulatory Lipids. *J Am Heart Assoc*. 2022 Oct 4;11(19):e027103. DOI:10.1161/JAHA.122.027103, PMID:36193934, PMCID:PMC9673737.
22. Partanen JJ, Häppälä P, Zhou W, Lehisto AA, Ainola M, Sutinen E, Allen RJ, Stockwell AD, Leavy OC, Oldham JM, Guillen-Guio B, Cox NJ, Hirbo JB, Schwartz DA, Fingerlin TE, Flores C, Noth I, Yaspan BL, Jenkins RG, Wain LV, Ripatti S, Pirinen M; International IPF Genetics Consortium; Global Biobank Meta-Analysis Initiative (GBMI); Laitinen T, Kaarteenaho R, Myllärniemi M, Daly MJ, Koskela JT. Leveraging global multi-ancestry meta-analysis in the study of idiopathic pulmonary fibrosis genetics. *Cell Genom*. 2022 Oct 12;2(10):100181. DOI:10.1016/j.xgen.2022.100181, PMID:36777997, PMCID:PMC9903787.
23. COVID-19 Host Genetics Initiative. A first update on mapping the human genetic architecture of COVID-19. *Nature*. 2022 Aug;608(7921):E1-E10. DOI:10.1038/s41586-022-04826-7 , PMID:35922517, PMCID: none.

24. Mars N, Kerola AM, Kauppi MJ, Pirinen M, Elonheimo O, Sokka-Isler T. Cluster analysis identifies unmet healthcare needs among patients with rheumatoid arthritis. *Scand J Rheumatol.* 2022 Sep;51(5):355-362. DOI:10.1080/03009742.2021.1944306 , PMID:34511040, PMCID: none.
25. Buchwald J, Chenoweth MJ, Palviainen T, Zhu G, Benner C, Gordon S, Korhonen T, Ripatti S, Madden PAF, Lehtimäki T, Raitakari OT, Salomaa V, Rose RJ, George TP, Lerman C, Pirinen M, Martin NG, Kaprio J, Loukola A, Tyndale RF. Genome-wide association meta-analysis of nicotine metabolism and cigarette consumption measures in smokers of European descent. *Mol Psychiatry.* 2021 Jun;26(6):2212-2223. DOI:10.1038/s41380-020-0702-z, PMID:32157176, PMCID:PMC7483250.
26. Ruotsalainen SE, Partanen JJ, Cichonska A, Lin J, Benner C, Surakka I; FinnGen; Reeve MP, Palta P, Salmi M, Jalkanen S, Ahola-Olli A, Palotie A, Salomaa V, Daly MJ, Pirinen M, Ripatti S, Koskela J. An expanded analysis framework for multivariate GWAS connects inflammatory biomarkers to functional variants and disease. *Eur J Hum Genet.* 2021 Feb;29(2):309-324. DOI:10.1038/s41431-020-00730-8, PMID:33110245, PMCID:PMC7868371.
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28. Hassan S, Surakka I, Taskinen MR, Salomaa V, Palotie A, Wessman M, Tukiainen T, Pirinen M, Palta P, Ripatti S. High-resolution population-specific recombination rates and their effect on phasing and genotype imputation. *Eur J Hum Genet.* 2021 Apr;29(4):615-624. DOI:10.1038/s41431-020-00768-8, PMID:33249422, PMCID:PMC8114909.
29. Kermenin S, Cerioli N, Pacauskas D, Havulinna AS, Perola M, Jousilahti P, Salomaa V, Daly MJ, Vyas R, Ripatti S, Pirinen M. Changes in the fine-scale genetic structure of Finland through the 20th century. *PLoS Genet.* 2021 Mar 4;17(3):e1009347. DOI:10.1371/journal.pgen.1009347, PMID: 33661898, PMCID:PMC7932171.
30. Ahlström S, Bergman P, Jokela R, Ottensmann L, Ahola-Olli A, Pirinen M, Olkkola KT, Kaunisto MA, Kalso E. First genome-wide association study on rocuronium dose requirements shows association with SLCO1A2. *Br J Anaesth.* 2021 May;126(5):949-957. DOI:10.1016/j.bja.2021.01.029, PMID:33676726, PMCID:PMC8132880.
31. Almangush A, Alabi RO, Troiano G, Coletta RD, Salo T, Pirinen M, Mäkitie AA, Leivo I. Clinical significance of tumor-stroma ratio in head and neck cancer: a systematic review and meta-analysis. *BMC Cancer.* 2021 Apr 30;21(1):480. DOI:10.1186/s12885-021-08222-8, PMID:33931044, PMCID:PMC8086072.
32. Alabi RO, Youssef O, Pirinen M, Elmusrati M, Mäkitie AA, Leivo I, Almangush A. Machine learning in oral squamous cell carcinoma: Current status, clinical concerns and prospects for future-A systematic review. *Artif Intell Med.* 2021 May;115:102060. DOI:10.1016/j.artmed.2021.102060, PMID:34001326, PMCID: none.
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34. Venkataraman GR, DeBoever C, Tanigawa Y, Aguirre M, Ioannidis AG, Mostafavi H, Spencer CCA, Poterba T, Bustamante CD, Daly MJ, Pirinen M, Rivas MA. Bayesian model comparison for rare-variant association studies. *Am J Hum Genet.* 2021 Dec 2;108(12):2354-2367. DOI:10.1016/j.ajhg.2021.11.005, PMID:34822764, PMCID:PMC8715195.
35. Ripatti P, Rämö JT, Mars NJ, Fu Y, Lin J, Söderlund S, Benner C, Surakka I, Kiiskinen T, Havulinna AS, Palta P, Freimer NB, Widén E, Salomaa V, Tukiainen T, Pirinen M, Palotie A, Taskinen MR,

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 38. Almangush A, Pirinen M, Youssef O, Mäkitie AA, Leivo I. Risk stratification in oral squamous cell carcinoma using staging of the eighth American Joint Committee on Cancer: Systematic review and meta-analysis. *Head Neck.* 2020 Oct;42(10):3002-3017. DOI:10.1002/hed.26344, PMID:32548858, PMCID: none.
 39. Weissbrod O, Hormozdiari F, Benner C, Cui R, Ulirsch J, Gazal S, Schoech AP, van de Geijn B, Reshef Y, Márquez-Luna C, O'Connor L, Pirinen M, Finucane HK, Price AL. Functionally informed fine-mapping and polygenic localization of complex trait heritability. *Nat Genet.* 2020 Dec;52(12):1355-1363. DOI:10.1038/s41588-020-00735-5, PMID:33199916, PMCID:PMC7710571.
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