



**Publications X-omics consortium**

**2021**

## Publications of the X-omics consortium

### December 2021

*Comparative Analysis of Antibodies and Heavily Glycosylated Macromolecular Immune Complexes by Size-Exclusion Chromatography Multi-Angle Light Scattering, Native Charge Detection Mass Spectrometry, and Mass Photometry.*

den Boer MA, Lai SH, Xue X, van Kampen MD, Bleijlevens B, **Heck AJR**.

*Anal Chem.* 2021 Dec 23. doi: 10.1021/acs.analchem.1c03656. Online ahead of print. PMID: 34939405

<https://pubmed.ncbi.nlm.nih.gov/34939405/>

*<sup>1</sup>H-NMR metabolomics-based surrogates to impute common clinical risk factors and endpoints.*

Bizzarri D, Reinders MJT, Beekman M, **Slagboom PE**, Bbmri-NI, van den Akker EB.

*EBioMedicine.* 2021 Dec 20;75:103764. doi: 10.1016/j.ebiom.2021.103764. Online ahead of print. PMID: 34942446

<https://pubmed.ncbi.nlm.nih.gov/34942446/>

*Changes in the Diagnosis of Stroke and Cardiovascular Conditions in Primary Care During First 2 COVID-19 Waves in the Netherlands.*

Velek P, Splinter MJ, Ikram MK, **Ikram MA**, Leening MJG, van der Lei J, Hartman TO, Peters LL, Tange H, Rutten FH, van Weert H, Wolters FJ, Bindels PJE, Licher S, de Schepper EIT.

*Neurology.* 2021 Dec 29;10.1212/WNL.0000000000013145. doi: 10.1212/WNL.0000000000013145. Online ahead of print. PMID: 34965968

<https://pubmed.ncbi.nlm.nih.gov/34965968/>

*Subclinical Measures of Peripheral Atherosclerosis and the Risk of New-Onset Atrial Fibrillation in the General Population: the Rotterdam Study.*

Geurts S, Brunborg C, Papageorgiou G, **Ikram MA**, Kavousi M.

*J Am Heart Assoc.* 2021 Dec 31:e023967. doi: 10.1161/JAHA.121.023967. Online ahead of print. PMID: 34970920

<https://pubmed.ncbi.nlm.nih.gov/34970920/>

*Ribociclib Induces Broad Chemotherapy Resistance and EGFR Dependency in ESR1 Wildtype and Mutant Breast Cancer.*

Mayayo-Peralta I, Faggion B, Hoekman L, Morris B, Liefink C, Goldsbrough I, Buluwela L, Siefert JC, Post H, **Altelaar M**, Beijersbergen R, Ali S, Zwart W, Prekovic S.

Cancers (Basel). 2021 Dec 16;13(24):6314. doi: 10.3390/cancers13246314. PMID: 34944934

<https://pubmed.ncbi.nlm.nih.gov/34944934/>

*A functional spleen contributes to afucosylated IgG in humans.*

Wojcik I, Schmidt DE, de Neef LA, Rab MAE, Meek B, de Weerd O, **Wuhrer M**, van der Schoot CE, Zwaginga JJ, de Haas M, Falck D, Vidarsson G.

Sci Rep. 2021 Dec 15;11(1):24045. doi: 10.1038/s41598-021-03196-w. PMID: 34911982

<https://pubmed.ncbi.nlm.nih.gov/34911982/>

*Omega-6 and omega-3 oxylipins as potential markers of cardiometabolic risk in young adults.*

Jurado-Fasoli L, Di X, Kohler I, Osuna-Prieto FJ, **Hankemeier T**, Krekels E, Harms AC, Yang W, Garcia-Lario JV, Fernández-Veledo S, Ruiz JR, Rensen PCN, Martinez-Tellez B.

Obesity (Silver Spring). 2021 Dec 12. doi: 10.1002/oby.23282. Online ahead of print. PMID: 34898010

<https://pubmed.ncbi.nlm.nih.gov/34898010/>

*Huntingtin structure is orchestrated by HAP40 and shows a polyglutamine expansion-specific interaction with exon 1.*

Harding RJ, Deme JC, Hevler JF, Tamara S, Lemak A, Cattle JP, Szewczyk MM, Begeja N, Goss S, Zuo X, Loppnau P, Seitova A, Hutchinson A, Fan L, Truant R, Schapira M, Carroll JB, **Heck AJR**, Lea SM, Arrowsmith CH.

Commun Biol. 2021 Dec 8;4(1):1374. doi: 10.1038/s42003-021-02895-4. PMID: 34880419

<https://pubmed.ncbi.nlm.nih.gov/34880419/>

*Genetic Risk for Smoking: Disentangling Interplay Between Genes and Socioeconomic Status.*

Pasman JA, Demange PA, Guloksuz S, Willemsen AHM, Abdellaoui A, Ten Have M, Hottenga JJ, **Boomsma DI**, de Geus E, Bartels M, de Graaf R, Verweij KJH, Smit DJ, Nivard M, Vink JM.

*Behav Genet.* 2021 Dec 2. doi: 10.1007/s10519-021-10094-4. Online ahead of print. PMID: 34855049

<https://pubmed.ncbi.nlm.nih.gov/34855049/>

*Fat metabolism is associated with telomere length in six population-based studies.*

van der Spek A, Karamujić-Čomić H, Pool R, Bot M, Beekman M, Garmaveva S, Arp PP, Henkelman S, Liu J, Alves AC, Willemsen G, van Grootheest G, Aubert G; BMMRI Metabolomics Consortium, **Ikram MA**, Jarvelin MR, Lansdorp P, Uitterlinden AG, Zhernakova A, **Slagboom PE**, Penninx BWJH, **Boomsma DI**, Amin N, van Duijn CM.

*Hum Mol Genet.* 2021 Dec 7:ddab281. doi: 10.1093/hmg/ddab281. Online ahead of print. PMID: 34875050

<https://pubmed.ncbi.nlm.nih.gov/34875050/>

*Methylome-wide association study of antidepressant use in Generation Scotland and the Netherlands Twin Register implicates the innate immune system.*

Barbu MC, Huider F, Campbell A, Amador C, Adams MJ, Lynall ME, Howard DM, Walker RM, Morris SW, Van Dongen J, Porteous DJ, Evans KL, Bullmore E, Willemsen G, **Boomsma DI**, Whalley HC, McIntosh AM.

*Mol Psychiatry.* 2021 Dec 8. doi: 10.1038/s41380-021-01412-7. Online ahead of print. PMID: 34880450

<https://pubmed.ncbi.nlm.nih.gov/34880450/>

*The power of genetic diversity in genome-wide association studies of lipids.*

Graham SE, Clarke SL, Wu KH, Kanoni S, Zajac GJM, Ramdas S, Surakka I, Ntalla I, Vedantam S, Winkler TW, Locke AE, Marouli E, Hwang MY, Han S, Narita A, Choudhury A, Bentley AR, Ekoru K, Verma A, Trivedi B, Martin HC, Hunt KA, Hui Q, Klarin D, Zhu X, Thorleifsson G, Helgadottir A, Gudbjartsson DF, Holm H, Olafsson I, Akiyama M, Sakaue S, Terao C, Kanai M, Zhou W, Brumpton BM, Rasheed H, Ruotsalainen SE, Havulinna AS, Veturi Y, Feng Q, Rosenthal EA, Lingren T, Pacheco JA, Pendergrass SA, Haessler J, Giulianini F, Bradford Y, Miller JE, Campbell A, Lin K, Millwood IY, Hindy G, Rasheed A, Faul JD, Zhao W, Weir DR, Turman C, Huang H, Graff M, Mahajan A, Brown MR, Zhang W, Yu K, Schmidt EM, Pandit A, Gustafsson S, Yin X, Luan J, Zhao JH, Matsuda F, Jang HM, Yoon K, Medina-Gomez C, Pitsillides A, Hottenga JJ, Willemsen G, Wood AR, Ji Y, Gao Z, Haworth S, Mitchell RE, Chai JF, Aadahl M, Yao J, Manichaikul A, Warren HR, Ramirez J, Bork-Jensen J, Kärhus LL, Goel A, Sabater-Lleal M, Noordam R, Sidore C, Fiorillo E, McDaid AF, Marques-Vidal P, Wielscher M, Trompet S, Sattar N, Møllehave LT, Thuesen BH, Munz M, Zeng L, Huang J, Yang B, Poveda A, Kurbasic A, Lamina C, Forer L, Scholz M, Galesloot TE, Bradfield JP, Daw EW, Zmuda JM, Mitchell JS, Fuchsberger C, Christensen H, Brody JA, Feitosa MF, Wojczynski MK, Preuss M, Mangino M, Christofidou P, Verweij N, Benjamins JW, Engmann J, Kember RL, Slieker RC, Lo KS, Zilhao NR, Le P, Kleber ME, Delgado GE, Huo S, Ikeda DD, Iha H, Yang J, Liu J, Leonard HL, Marten J, Schmidt B, Arendt M, Smyth LJ, Cañadas-Garre M, Wang C, Nakatochi M, Wong A, Hutri-Kähönen N, Sim X, Xia R, Huerta-Chagoya A, Fernandez-Lopez JC, Lyssenko V, Ahmed M, Jackson AU, Irvin MR, Oldmeadow C, Kim HN, Ryu S, Timmers PRHJ, Arbeeveva L, Dorajoo R, Lange LA, Chai X, Prasad

G, Lorés-Motta L, Pauper M, Long J, Li X, Theusch E, Takeuchi F, Spracklen CN, Loukola A, Bollepalli S, Warner SC, Wang YX, Wei WB, Nutile T, Ruggiero D, Sung YJ, Hung YJ, Chen S, Liu F, Yang J, Kentistou KA, Gorski M, Brumat M, Meidtner K, Bielak LF, Smith JA, Hebbar P, Farmaki AE, Hofer E, Lin M, Xue C, Zhang J, Concas MP, Vaccargiu S, van der Most PJ, Pitkänen N, Cade BE, Lee J, van der Laan SW, Chitrala KN, Weiss S, Zimmermann ME, Lee JY, Choi HS, Nethander M, Freitag-Wolf S, Southam L, Rayner NW, Wang CA, Lin SY, Wang JS, Couture C, Lyytikäinen LP, Nikus K, Cuellar-Partida G, Vestergaard H, Hildalgo B, Giannakopoulou O, Cai Q, Obura MO, van Setten J, Li X, Schwander K, Terzikhan N, Shin JH, Jackson RD, Reiner AP, Martin LW, Chen Z, Li L, Highland HM, Young KL, Kawaguchi T, Thiery J, Bis JC, Nadkarni GN, Launer LJ, Li H, Nalls MA, Raitakari OT, Ichihara S, Wild SH, Nelson CP, Campbell H, Jäger S, Nabika T, Al-Mulla F, Niinikoski H, Braund PS, Kolcic I, Kovacs P, Giardoglou T, Katsuya T, Bhatti KF, de Kleijn D, de Borst GJ, Kim EK, Adams HHH, **Ikram MA**, Zhu X, Asselbergs FW, Kraaijeveld AO, Beulens JWJ, Shu XO, Rallidis LS, Pedersen O, Hansen T, Mitchell P, Hewitt AW, Kähönen M, Pérusse L, Bouchard C, Tönjes A, Chen YI, Pennell CE, Mori TA, Lieb W, Franke A, Ohlsson C, Mellström D, Cho YS, Lee H, Yuan JM, Koh WP, Rhee SY, Woo JT, Heid IM, Stark KJ, Völzke H, Homuth G, Evans MK, Zonderman AB, Polasek O, Pasterkamp G, Hofer IE, Redline S, Pahkala K, Oldehinkel AJ, Snieder H, Biino G, Schmidt R, Schmidt H, Chen YE, Bandinelli S, Dedoussis G, Thanaraj TA, Kardia SLR, Kato N, Schulze MB, Grotto G, Jung B, Böger CA, Joshi PK, Bennett DA, De Jager PL, Lu X, Mamakou V, Brown M, Caulfield MJ, Munroe PB, Guo X, Ciullo M, Jonas JB, Samani NJ, Kaprio J, Pajukanta P, Adair LS, Bechayda SA, de Silva HJ, Wickremasinghe AR, Krauss RM, Wu JY, Zheng W, den Hollander AI, Bharadwaj D, Correa A, Wilson JG, Lind L, Heng CK, Nelson AE, Golightly YM, Wilson JF, Penninx B, Kim HL, Attia J, Scott RJ, Rao DC, Arnett DK, Walker M, Koistinen HA, Chandak GR, Yajnik CS, Mercader JM, Tusié-Luna T, Aguilar-Salinas CA, Villalpando CG, Orozco L, Fornage M, Tai ES, van Dam RM, Lehtimäki T, Chaturvedi N, Yokota M, Liu J, Reilly DF, McKnight AJ, Kee F, Jöckel KH, McCarthy MI, Palmer CNA, Vitart V, Hayward C, Simonsick E, van Duijn CM, Lu F, Qu J, Hishigaki H, Lin X, März W, Parra EJ, Cruz M, Gudnason V, Tardif JC, Lettre G, 't Hart LM, Elders PJM, Damrauer SM, Kumari M, Kivimäki M, van der Harst P, Spector TD, Loos RJJ, Province MA, Psaty BM, Brandslund I, Pramstaller PP, Christensen K, Ripatti S, Widén E, Hakonarson H, Grant SFA, Kiemeny LALM, de Graaf J, Loeffler M, Kronenberg F, Gu D, Erdmann J, Schunkert H, Franks PW, Linneberg A, Jukema JW, Khera AV, Männikkö M, Jarvelin MR, Kutalik Z, Cucca F, Mook-Kanamori DO, van Dijk KW, Watkins H, Strachan DP, Grarup N, Sever P, Poulter N, Rotter JI, Dantoft TM, Karpe F, Neville MJ, Timpson NJ, Cheng CY, Wong TY, Khor CC, Sabanayagam C, Peters A, Gieger C, Hattersley AT, Pedersen NL, Magnusson PKE, **Boomsma DI**, de Geus EJC, Cupples LA, van Meurs JBJ, Ghanbari M, Gordon-Larsen P, Huang W, Kim YJ, Tabara Y, Wareham NJ, Langenberg C, Zeggini E, Kuusisto J, Laakso M, Ingelsson E, Abecasis G, Chambers JC, Kooner JS, de Vries PS, Morrison AC, North KE, Daviglus M, Kraft P, Martin NG, Whitfield JB, Abbas S, Saleheen D, Walters RG, Holmes MV, Black C, Smith BH, Justice AE, Baras A, Buring JE, Ridker PM, Chasman DI, Kooperberg C, Wei WQ, Jarvik GP, Namjou B, Hayes MG, Ritchie MD, Jousilahti P, Salomaa V, Hveem K, Åsvold BO, Kubo M, Kamatani Y, Okada Y, Murakami Y, Thorsteinsdóttir U, Stefansson K, Ho YL, Lynch JA, Rader DJ, Tsao PS, Chang KM, Cho K, O'Donnell CJ, Gaziano JM, Wilson P, Rotimi CN, Hazelhurst S, Ramsay M, Trembath RC, van Heel DA, Tamiya G, Yamamoto M, Kim BJ, Mohlke KL, Frayling TM, Hirschhorn JN, Kathiresan S; VA Million Veteran Program; Global Lipids Genetics Consortium\*, Boehnke M, Natarajan P, Peloso GM, Brown CD, Morris AP, Assimes TL, Deloukas P, Sun YV, Willer CJ.

Nature. 2021 Dec 9. doi: 10.1038/s41586-021-04064-3. Online ahead of print.  
PMID: 34887591

<https://pubmed.ncbi.nlm.nih.gov/34887591/>

*Peripheral Immune Cell Numbers and C-Reactive Protein in Parkinson's Disease: Results from a Population-Based Study.*

Dommershuijsen LJ, Ruiter R, Erler NS, Rizopoulos D, **Ikram MA**, Ikram MK.

J Parkinsons Dis. 2021 Dec 5. doi: 10.3233/JPD-212914. Online ahead of print.

PMID: 34897101

<https://pubmed.ncbi.nlm.nih.gov/34897101/>

*Automated High-Throughput Method for the Fast, Robust, and Reproducible Enrichment of Newly Synthesized Proteins.*

Vargas-Diaz D, **Altelaar M**.

J Proteome Res. 2021 Dec 3. doi: 10.1021/acs.jproteome.1c00743. Online ahead of print.

PMID: 34860524

<https://pubmed.ncbi.nlm.nih.gov/34860524/>

*Combined Quantitative (Phospho)proteomics and Mass Spectrometry Imaging Reveal Temporal and Spatial Protein Changes in Human Intestinal Ischemia-Reperfusion.*

Kip AM, Valverde JM, **Altelaar M**, Heeren RMA, Hundscheid IHR, Dejong CHC, Olde Damink SWM, Balluff B, Lenaerts K.

J Proteome Res. 2021 Dec 7. doi: 10.1021/acs.jproteome.1c00447. Online ahead of print.

PMID: 34874173

<https://pubmed.ncbi.nlm.nih.gov/34874173/>

*Deep Proteomic Analysis on Biobanked Paraffine-Archived Melanoma with Prognostic/Predictive Biomarker Read-Out.*

Szadai L, Velasquez E, Szeitz B, Almeida NP, Domont G, Betancourt LH, Gil J, Marko-Varga M, Oskolas H, Jánosi ÁJ, Boyano-Adánez MDC, Kemény L, Baldetorp B, Malm J, **Horvatovich P**, Szász AM, Németh IB, Marko-Varga G.

Cancers (Basel). 2021 Dec 3;13(23):6105. doi:10.3390/cancers13236105. PMID: 34885218

<https://pubmed.ncbi.nlm.nih.gov/34885218/>

*Accurate Prediction of Protein Sequences for Proteogenomics Data Integration.*

Hagemeijer YP, **Guryev V**, **Horvatovich P**.

Methods Mol Biol. 2022;2420:233-260. doi: 10.1007/978-1-0716-1936-0\_18.

PMID: 34905178

<https://pubmed.ncbi.nlm.nih.gov/34905178/>

*Variant calling: considerations, practices, and developments.*

Zverinova S, **Guryev V.**

Hum Mutat. 2021 Dec 9. doi: 10.1002/humu.24311. Online ahead of print. PMID: 34882898

<https://pubmed.ncbi.nlm.nih.gov/34882898/>

*Acetyl-CoA Carboxylase Inhibitor CP640.186 Increases Tubulin Acetylation and Impairs Thrombin-Induced Platelet Aggregation.*

Octave M, Piroton L, Ginion A, Robaux V, Leprore S, Ambroise J, Bouzin C, Guigas B, **Giera M**, Foretz M, Bertrand L, Beauloye C, Horman S.

Int J Mol Sci. 2021 Dec 4;22(23):13129. doi: 10.3390/ijms222313129. PMID: 34884932

<https://pubmed.ncbi.nlm.nih.gov/34884932/>

*Cross-Laboratory Standardization of Preclinical Lipidomics Using Differential Mobility Spectrometry and Multiple Reaction Monitoring.*

Ghorasaini M, Mohammed Y, Adamski J, Bettcher L, Bowden JA, Cabruja M, Contrepolis K, Ellenberger M, Gajera B, Haid M, Hornburg D, Hunter C, Jones CM, Klein T, Mayboroda O, Mirzaian M, Moaddel R, Ferrucci L, Lovett J, Nazir K, Pearson M, Ubhi BK, Raftery D, Riols F, Sayers R, Sijbrands EJG, Snyder MP, Su B, Velagapudi V, Williams KJ, de Rijke YB, **Giera M.**

Anal Chem. 2021 Dec 14;93(49):16369-16378. doi: 10.1021/acs.analchem.1c02826. Epub 2021 Dec 3. PMID: 34859676

<https://pubmed.ncbi.nlm.nih.gov/34859676/>

*Fluorinated rhamnosides inhibit cellular fucosylation.*

Pijnenborg JFA, Rossing E, Merx J, Noga MJ, Titulaer WHC, Eerden N, Veizaj R, White PB, **Lefeber DJ**, Boltje TJ.

Nat Commun. 2021 Dec 2;12(1):7024. doi: 10.1038/s41467-021-27355-9. PMID: 34857733

<https://pubmed.ncbi.nlm.nih.gov/34857733/>

*Calpain-2 regulates hypoxia/HIF-induced plasticity toward amoeboid cancer cell migration and metastasis.*

Te Boekhorst V, Jiang L, Mählen M, Meerlo M, Dunkel G, Durst FC, Yang Y, Levine H, **Burgering BMT**, Friedl P.

Curr Biol. 2021 Dec 6:S0960-9822(21)01599-2. doi: 10.1016/j.cub.2021.11.040. Online ahead of print. PMID: 34883047

<https://pubmed.ncbi.nlm.nih.gov/34883047/>

*Genome-wide variant calling in reanalysis of exome sequencing data uncovered a pathogenic TUBB3 variant.*

de Boer E, Yaldiz B, Denommé-Pichon AS, Matalonga L, Laurie S; Solve-RD SNV-indel working group, Steyaert W, de Reuver R, Gilissen C, Kwint M, Pfundt R; Solve-RD-DITF-ITHACA, Verloes A, Willemsen MAAP, de Vries BBA, Vitobello A, Kleefstra T, **Vissers LELM**.

Eur J Med Genet. 2021 Dec 1;65(1):104402. doi: 10.1016/j.ejmg.2021.104402. Online ahead of print. PMID: 34863918

<https://pubmed.ncbi.nlm.nih.gov/34863918/>

*Accurate detection of circulating tumor DNA using nanopore consensus sequencing.*

Marcozzi A, Jager M, Elferink M, Straver R, van Ginkel JH, Peltenburg B, Chen LT, Renkens I, van Kuik J, Terhaard C, de Bree R, Devriese LA, Willems SM, Kloosterman WP, **de Ridder J**.

NPJ Genom Med. 2021 Dec 9;6(1):106. doi: 10.1038/s41525-021-00272-y .PMID: 34887408

<https://pubmed.ncbi.nlm.nih.gov/34887408/>



## November 2021

*Kinetics of myelin breakdown products: A labeling study in patients with progressive multiple sclerosis.*

Kanhai KMS, Goulooze SC, van der Grond J, Harms AC, **Hankemeier T**, Verma A, Dent G, Chavez J, Meijering H, Groeneveld GJ.

Clin Transl Sci. 2021 Nov 19. doi: 10.1111/cts.13181. Online ahead of print. PMID: 34799987

<https://pubmed.ncbi.nlm.nih.gov/34799987/>

*In-cell structures of conserved supramolecular protein arrays at the mitochondria-cytoskeleton interface in mammalian sperm.*

Leung MR, Zenezini Chiozzi R, Roelofs MC, Hevler JF, Ravi RT, Maitan P, Zhang M, Henning H, Bromfield EG, Howes SC, Gadella BM, **Heck AJR**, Zeev-Ben-Mordehai T.

Proc Natl Acad Sci U S A. 2021 Nov 9;118(45):e2110996118. doi:10.1073/pnas.2110996118. PMID: 34737233

<https://pubmed.ncbi.nlm.nih.gov/34737233/>

*Extending Native Top-Down Electron Capture Dissociation to MDa Immunoglobulin Complexes Provides Useful Sequence Tags Covering Their Critical Variable Complementarity-Determining Regions.*

Greisch JF, den Boer MA, Lai SH, Gallagher K, Bondt A, Commandeur J, **Heck AJR**.

Anal Chem. 2021 Nov 23. doi: 10.1021/acs.analchem.1c03740. Online ahead of print. PMID: 34813704

<https://pubmed.ncbi.nlm.nih.gov/34813704/>

*Probing Affinity, Avidity, Anticooperativity, and Competition in Antibody and Receptor Binding to the SARS-CoV-2 Spike by Single Particle Mass Analyses.*

Yin V, Lai SH, Caniels TG, Brouwer PJM, Brinkkemper M, Aldon Y, Liu H, Yuan M, Wilson IA, Sanders RW, van Gils MJ, **Heck AJR**.

ACS Cent Sci. 2021 Nov 24;7(11):1863-1873. doi: 10.1021/acscentsci.1c00804. Epub 2021 Nov 4. PMID: 34845440

<https://pubmed.ncbi.nlm.nih.gov/34845440/>

*Association of Thyroid Dysfunction With Cognitive Function: An Individual Participant Data Analysis.*

van Vliet NA, van Heemst D, Almeida OP, Åsvold BO, Aubert CE, Bae JB, Barnes LE, Bauer DC, Blauw GJ, Brayne C, Cappola AR, Ceresini G, Comijs HC, Dartigues JF, Degryse JM, Dullaart RPF, van Eersel MEA, den Elzen WPJ, Ferrucci L, Fink HA, Flicker L, Grabe HJ, Han JW, Helmer C, Huisman M, **Ikram MA**, Imaizumi M, de Jongh RT, Jukema JW, Kim KW, Kuller LH, Lopez OL, Mooijaart SP, Moon JH, Moutzouri E, Nauck M, Parle J, Peeters RP, Samuels MH, Schmidt CO, Schminke U, **Slagboom PE**, Stordal E, Vaes B, Völzke H, Westendorp RGJ, Yamada M, Yeap BB, Rodondi N, Gussekloo J, Trompet S; Thyroid Studies Collaboration.

JAMA Intern Med. 2021 Nov 1;181(11):1440-1450. doi: 10.1001/jamainternmed.2021.5078. PMID: 34491268

<https://pubmed.ncbi.nlm.nih.gov/34491268/>

*Higher thyrotropin leads to unfavorable lipid profile and somewhat higher cardiovascular disease risk: evidence from multi-cohort Mendelian randomization and metabolomic profiling.*

van Vliet NA, Bos MM, Thesing CS, Chaker L, Pietzner M, Houtman E, Neville MJ, Li-Gao R, Trompet S, Mustafa R, Ahmadizar F, Beekman M, Bot M, Budde K, Christodoulides C, Dehghan A, Delles C, Elliott P, Evangelou M, Gao H, Ghanbari M, van Herwaarden AE, **Ikram MA**, Jaeger M, Jukema JW, Karaman I, Karpe F, Kloppenburg M, Meessen JMTA, Meulenbelt I, Milaneschi Y, Mooijaart SP, Mook-Kanamori DO, Netea MG, Netea-Maier RT, Peeters RP, Penninx BWJH, Sattar N, **Slagboom PE**, Suchiman HED, Völzke H, Willems van Dijk K, Noordam R, van Heemst D; BBMRI Metabolomics Consortium.

BMC Med. 2021 Nov 3;19(1):266. doi: 10.1186/s12916-021-02130-1. PMID: 34727949

<https://pubmed.ncbi.nlm.nih.gov/34727949/>

*Timing of objectively-collected physical activity in relation to body weight and metabolic health in sedentary older people: a cross-sectional and prospective analysis.*

Albalak G, Stijntjes M, Wijsman CA, **Slagboom PE**, van der Ouderaa FJ, Mooijaart SP, van Heemst D, Noordam R.

Int J Obes (Lond). 2021 Nov 15. doi: 10.1038/s41366-021-01018-7. Online ahead of print. PMID: 34782736

<https://pubmed.ncbi.nlm.nih.gov/34782736/>

*Association between fat-soluble vitamins and self-reported health status: a cross-sectional analysis of the MARK-AGE cohort.*

Stokes CS, Weber D, Wagenpfeil S, Stuetz W, Moreno-Villanueva M, Dollé MET, Jansen E, Gonos ES, Bernhardt J, Grubeck-Loebenstien B, Fiegl S, Sikora E, Toussaint O, Debacq-Chainiaux F, Capri M, Hervonen A, **Slagboom PE**, Breusing N, Frank J, Bürkle A, Franceschi C, Grune T.

Br J Nutr. 2021 Nov 19:1-28. doi: 10.1017/S0007114521004633. Online ahead of print. PMID: 34794520

<https://pubmed.ncbi.nlm.nih.gov/34794520/>

*Deciphering osteoarthritis genetics across 826,690 individuals from 9 populations.*

Boer CG, Hatzikotoulas K, Southam L, Stefánsdóttir L, Zhang Y, Coutinho de Almeida R, Wu TT, Zheng J, Hartley A, Teder-Laving M, Skogholt AH, Terao C, Zengini E, Alexiadis G, Barysenka A, Bjornsdottir G, Gabrielsen ME, Gilly A, Ingvarsson T, Johnsen MB, Jonsson H, Kloppenburg M, Luetge A, Lund SH, Mägi R, Mangino M, Nelissen RRGHH, Shivakumar M, Steinberg J, Takuwa H, Thomas LF, Tuerlings M; arcOGEN Consortium; HUNT All-In Pain; ARGO Consortium; Regeneron Genetics Center, Babis GC, Yin Cheung JP, Kang JH, Kraft P, Lietman SA, Samartzis D, **Slagboom PE**, Stefansson K, Thorsteinsdottir U, Tobias JH, Uitterlinden AG, Winsvold B, Zwart JA, Smith GD, Sham PC, Thorleifsson G, Gaunt TR, Morris AP, Valdes AM, Tsezou A, Cheah KSE, Ikegawa S, Hveem K, Esko T, Wilkinson JM, Meulenbelt I, Michael Lee MT, van Meurs JBJ, Styrkársdóttir U, Zeggini E.

Cell. 2021 Nov 24;184(24):6003-6005. doi: 10.1016/j.cell.2021.11.003. PMID: 34822786

<https://pubmed.ncbi.nlm.nih.gov/34822786/>

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