



**Publications X-omics consortium**

**2024**

## Publications of the X-omics consortium

### April

*nanoRAPIDS as an analytical pipeline for the discovery of novel bioactive metabolites in complex culture extracts at the nanoscale.*

Nuñez Santiago I, Machushynets NV, Mladic M, van Bergeijk DA, Elsayed SS, **Hankemeier T**, van Wezel GP.

Commun Chem. 2024 Apr 1;7(1):71. doi: 10.1038/s42004-024-01153-y. PMID: 38561415

<https://pubmed.ncbi.nlm.nih.gov/38561415/>

*Antigen-specific Fab profiling achieves molecular-resolution analysis of human autoantibody repertoires in rheumatoid arthritis.*

Stork EM, van Rijswijck DMH, van Schie KA, Hoek M, Kissel T, Scherer HU, Huizinga TWJ, **Heck AJR**, Toes REM, Bondt A.

Nat Commun. 2024 Apr 10;15(1):3114. doi: 10.1038/s41467-024-47337-x. PMID: 38600082

<https://pubmed.ncbi.nlm.nih.gov/38600082/>

*Protein-Centric Analysis of Personalized Antibody Repertoires Using LC-MS-Based Fab-Profiling on a timsTOF.*

Fiala J, Schuster D, Ollivier S, Pengelley S, Lubeck M, Busch F, Jankevics A, Raether O, Greisch JF, **Heck AJR**.

J Am Soc Mass Spectrom. 2024 Apr 25. doi: 10.1021/jasms.4c00076. Online ahead of print. PMID: 38662593

<https://pubmed.ncbi.nlm.nih.gov/38662593/>

*Enhanced resolution profiling in twins reveals differential methylation signatures of type 2 diabetes with links to its complications.*

Christiansen C, Potier L, Martin TC, Villicaña S, Castillo-Fernandez JE, Mangino M, Menni C, Tsai PC, Campbell PJ, Mullin S, Ordoñana JR, Monteagudo O, Sachdev PS, Mather KA, Trollor JN, Pietilainen KH, Ollikainen M, Dalgård C, Kyvik K, Christensen K, van Dongen J, Willemsen G, **Boomsma DI**, Magnusson PKE, Pedersen NL, Wilson SG, Grundberg E, Spector TD, Bell JT.

EBioMedicine. 2024 Apr 3;103:105096. doi: 10.1016/j.ebiom.2024.105096. Online ahead of print. PMID: 38574408

<https://pubmed.ncbi.nlm.nih.gov/38574408/>

*Breast Cancer Polygenic Risk Score Validation and Effects of Variable Imputation.*

Beck JJ, Slunecka JL, Johnson BN, Van Asselt AJ, Finnicum CT, Ageton C, Krie A, Nickles H, Cowan K, Maxwell J, **Boomsma DI**, de Geus E, Ehli EA, Hottenga JJ.

*Cancers (Basel)*. 2024 Apr 20;16(8):1578. doi: 10.3390/cancers16081578. PMID: 38672660

<https://pubmed.ncbi.nlm.nih.gov/38672660/>

*Antidepressant use in relation to dementia risk, cognitive decline, and brain atrophy.*

Vom Hofe I, Stricker BH, Vernooij MW, Ikram MK, **Ikram MA**, Wolters FJ.

*Alzheimers Dement*. 2024 Apr 1. doi: 10.1002/alz.13807. Online ahead of print. PMID: 38561253

<https://pubmed.ncbi.nlm.nih.gov/38561253/>

*Estimation of thermodynamic and physicochemical properties of the alkali astatides: On the bond strength of molecular astatine (At<sub>2</sub>) and the hydration enthalpy of astatide (At<sup>-</sup>).*

Burgers PC, Zeneyedpour L, **Luiders TM**, Holmes JL.

*J Mass Spectrom*. 2024 Apr;59(4):e5010. doi: 10.1002/jms.5010. PMID: 38488842

<https://pubmed.ncbi.nlm.nih.gov/38488842/>

*mARC1 in MASLD: Modulation of lipid accumulation in human hepatocytes and adipocytes.*

Jones AK, Bajrami B, Campbell MK, Erzurumluoglu AM, Guo Q, Chen H, Zhang X, Zeveleva S, Kvaskoff D, Brunner AD, Muller S, Gathe V, Dave RM, Tanner JW, Rixen S, Struwe MA, Phoenix K, Klumph KJ, Robinson H, Veyel D, Muller A, Noyvert B, Bartholdy BA, Steixner-Kumar AA, Stutzki J, Drichel D, Omland S, Sheehan R, Hill J, Bretschneider T, Gottschling D, Scheidig AJ, Clement B, **Giera M**, Ding Z, Broadwater J, Warren CR.

*HepatoL Commun*. 2024 Apr 12;8(5):e0365. doi: 10.1097/HC9.0000000000000365. eCollection 2024 May 1. PMID: 38619429

<https://pubmed.ncbi.nlm.nih.gov/38619429/>

*CsIA and GlxA from Streptomyces lividans form a functional cellulose synthase complex.*

Zhong X, Nicolardi S, Ouyang R, **Wuhrer M**, Du C, van Wezel G, Vijgenboom E, Briegel A, Claessen D.

*Appl Environ Microbiol*. 2024 Apr 17;90(4):e0208723. doi: 10.1128/aem.02087-23. Epub 2024 Apr 1. PMID: 38557137

<https://pubmed.ncbi.nlm.nih.gov/38557137/>

*Pancreatic cancer-associated fibroblasts modulate macrophage differentiation via sialic acid-Siglec interactions.*

Boelaars K, Rodriguez E, Huinen ZR, Liu C, Wang D, Springer BO, Olesek K, Goossens-Kruijssen L, van Ee T, Lindijer D, Tak W, de Haas A, Wehry L, Nugteren-Boogaard JP, Mikula A, de Winde CM, Mebius RE, Tuveson DA, Giovannetti E, Bijlsma MF, **Wuhrer M**, van Vliet SJ, van Kooyk Y.

*Commun Biol.* 2024 Apr 9;7(1):430. doi: 10.1038/s42003-024-06087-8.PMID: 38594506

<https://pubmed.ncbi.nlm.nih.gov/38594506/>

*IgG1 glycosylation highlights premature aging in Down syndrome.*

Streng BMM, Van Coillie J, Wildenbeest JG, Binnendijk RS, Smits G, den Hartog G, Wang W, Nouta J, Linty F, Visser R, **Wuhrer M**, Vidarsson G, Bont LJ; PRIDE study group.

*Aging Cell.* 2024 Apr 15:e14167. doi: 10.1111/accel.14167. Online ahead of print. PMID: 38616780

<https://pubmed.ncbi.nlm.nih.gov/38616780/>

*(Sialyl)Lewis antigen expression on glycosphingolipids, N- and O-glycans in colorectal cancer cell lines is linked to a colon-like differentiation program.*

Wang D, Madunić K, Mayboroda OA, Lageveen-Kammeijer GSM, **Wuhrer M**.

*Mol Cell Proteomics.* 2024 Apr 24:100776. doi: 10.1016/j.mcpro.2024.100776. Online ahead of print. PMID: 38670309

<https://pubmed.ncbi.nlm.nih.gov/38670309/>

*Mixed-phase weak anion-exchange/reversed-phase LC-MS/MS for analysis of nucleotide sugars in human fibroblasts.*

Rahm M, Kwast H, Wessels HJCT, Noga MJ, **Lefeber DJ**.

*Anal Bioanal Chem.* 2024 Apr 27. doi: 10.1007/s00216-024-05313-w. Online ahead of print. PMID: 38676823

<https://pubmed.ncbi.nlm.nih.gov/38676823/>

*Design and preparation of a novel pullulan hard capsule formulation: A promising green candidate and study of crucial capsule features.*

Ramezani Kalmer R, Karimi A, Ramezanalizadeh H, **Ghanbari M**, Samandarian D, Sadjadinia A, Gholizadeh Dogaheh S, Moosavi S.

Heliyon. 2024 Apr 3;10(7):e28969. doi: 10.1016/j.heliyon.2024.e28969. eCollection 2024 Apr 15. PMID: 38617967

<https://pubmed.ncbi.nlm.nih.gov/38617967/>

*Time-to-Event Genome-Wide Association Study for Incident Cardiovascular Disease in People With Type 2 Diabetes.*

Kwak SH, Hernandez-Cancela RB, DiCorpo DA, Condon DE, Merino J, Wu P, Brody JA, Yao J, Guo X, Ahmadizar F, Meyer M, Sincan M, Mercader JM, Lee S, Haessler J, Vy HMT, Lin Z, Armstrong ND, Gu S, Tsao NL, Lange LA, Wang N, Wiggins KL, Trompet S, Liu S, Loos RJF, Judy R, Schroeder PH, Hasbani NR, Bos MM, Morrison AC, Jackson RD, Reiner AP, Manson JE, Chaudhary NS, Carmichael LK, Chen YI, Taylor KD, **Ghanbari M**, van Meurs J, Pitsillides AN, Psaty BM, Noordam R, Do R, Park KS, Jukema JW, Kavousi M, Correa A, Rich SS, Damrauer SM, Hajek C, Cho NH, Irvin MR, Pankow JS, Nadkarni GN, Sladek R, Goodarzi MO, Florez JC, Chasman DI, Heckbert SR, Kooperberg C, Dupuis J, Malhotra R, de Vries PS, Liu CT, Rotter JI, Meigs JB; Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium.

Diabetes Care. 2024 Apr 23;dc232274. doi: 10.2337/dc23-2274. Online ahead of print. PMID: 38652672

<https://pubmed.ncbi.nlm.nih.gov/38652672/>

## March

*Assessment of parental mosaicism rates in neurodevelopmental disorders caused by apparent de novo pathogenic variants using deep sequencing.*

Lecoquierre F, Cassinari K, Drouot N, May A, Fourneaux S, Charbonnier F, Derambure C, Coutant S, Saugier-veber P, **Hoischen A**, Charbonnier C, Nicolas G.

Sci Rep. 2024 Mar 4;14(1):5289. doi: 10.1038/s41598-024-53358-9. PMID: 38438430

<https://pubmed.ncbi.nlm.nih.gov/38438430/>

*Expanding the PRAAS spectrum: De novo mutations of immunoproteasome subunit  $\beta$ -type 10 in six infants with SCID-Omenn syndrome.*

van der Made CI, Kersten S, Chorin O, Engelhardt KR, Ramakrishnan G, Griffin H, Schim van der Loeff I, Venselaar H, Rothschild AR, Segev M, Schuurs-Hoeijmakers JHM, Mantere T, Essers R, Esteki MZ, Avital AL, Loo PS, Simons A, Pfundt R, Warris A, Seyger MM, van de Veerdonk FL, Netea MG, Slatter MA, Flood T, Gennery AR, Simon AJ, Lev A, Frizinsky S, Barel O, van der Burg M, Somech R, Hambleton S, Henriët SSV, **Hoischen A**.

Am J Hum Genet. 2024 Mar 12:S0002-9297(24)00045-4. doi: 10.1016/j.ajhg.2024.02.013. Online ahead of print. PMID: 38503300

<https://pubmed.ncbi.nlm.nih.gov/38503300/>

*Clonal hematopoiesis is associated with cardiovascular events in patients with stable coronary artery disease.*

Dregoesc MI, Tercan H, Tıgu AB, Bekkering S, Joosten LA, Netea MG, van Deuren RC, **Hoischen A**, Riksen NP, Iancu AC.

iScience. 2024 Mar 11;27(4):109472. doi: 10.1016/j.isci.2024.109472. eCollection 2024 Apr 19. PMID: 38558938

<https://pubmed.ncbi.nlm.nih.gov/38558938/>

*Future of Dutch NGS-Based Newborn Screening: Exploring the Technical Possibilities and Assessment of a Variant Classification Strategy.*

Kiewiet G, Westra D, de Boer EN, van Berkel E, Hofste TGJ, van Zweeden M, Derks RC, Leijsten NFA, Ruitkamp-Versteeg MHA, Charbon B, Johansson L, Bos-Kruizinga J, Veenstra IJ, de Sain-van der Velden MGM, Voorhoeve E, Heiner-Fokkema MR, van Spronsen F, Sikkema-Raddatz B, **Nelen M**.

Int J Neonatal Screen. 2024 Mar 7;10(1):20. doi: 10.3390/ijns10010020. PMID: 38535124

<https://pubmed.ncbi.nlm.nih.gov/38535124/>

*Association of Altered Plasma Lipidome with Disease Severity in COVID-19 Patients.*

Zhang Z, Karu N, Kindt A, Singh M, Lamont L, van Gammeren AJ, Ermens AAM, Harms AC, Portengen L, Vermeulen RCH, Dik WA, Langerak AW, van der Velden VHJ, **Hankemeier T**.

*Biomolecules*. 2024 Mar 1;14(3):296. doi: 10.3390/biom14030296. PMID: 38540716

<https://pubmed.ncbi.nlm.nih.gov/38540716/>

*Longitudinal metabolite profiling of Streptococcus pneumoniae-associated community-acquired pneumonia.*

den Hartog I, Zwep LB, Meulman JJ, **Hankemeier T**, van de Garde EMW, van Hasselt JGC.

*Metabolomics*. 2024 Mar 5;20(2):35. doi: 10.1007/s11306-024-02091-5. PMID: 38441696

<https://pubmed.ncbi.nlm.nih.gov/38441696/>

*Capillary electrophoresis-mass spectrometry for creatinine analysis in residual clinical plasma samples and comparison with gold standard assay.*

van Mever M, He B, van Veen M, Slaats J, Buijs MM, Wieringa JE, **Hankemeier T**, de Winter P, Ramautar R.

*Electrophoresis*. 2024 Mar 8. doi: 10.1002/elps.202300264. Online ahead of print. PMID: 38456383

<https://pubmed.ncbi.nlm.nih.gov/38456383/>

*A comparison between different human hepatocyte models reveals profound differences in net glucose production, lipid composition and metabolism in vitro.*

Bonanini F, Singh M, Yang H, Kurek D, Harms AC, Mardinoglu A, **Hankemeier T**.

*Exp Cell Res*. 2024 Mar 16;437(1):114008. doi: 10.1016/j.yexcr.2024.114008. Online ahead of print. PMID: 38499143

<https://pubmed.ncbi.nlm.nih.gov/38499143/>

*Ultralong transients enhance sensitivity and resolution in Orbitrap-based single-ion mass spectrometry.*

Deslignière E, Yin VC, Ebberink EHTM, Rolland AD, Barendregt A, Wörner TP, Nagornov KO, Kozhinov AN, Fort KL, Tsybin YO, Makarov AA, **Heck AJR**.

*Nat Methods*. 2024 Mar 5. doi: 10.1038/s41592-024-02207-8. Online ahead of print. PMID: 38443506

<https://pubmed.ncbi.nlm.nih.gov/38443506/>

*Assessment of Kinome-wide Activity Remodeling Upon Picornavirus Infection.*

Veth TS, Nouwen LV, Zwaagstra M, Lyoo H, Wierenga KA, Westendorp B, Altelaar MAFM, Berkers C, van Kuppeveld FJM, **Heck AJR**.

Mol Cell Proteomics. 2024 Mar 29;100757. doi: 10.1016/j.mcpro.2024.100757. Online ahead of print. PMID: 38556169

<https://pubmed.ncbi.nlm.nih.gov/38556169/>

*Genome-wide characterization of circulating metabolic biomarkers.*

Karjalainen MK, Karthikeyan S, Oliver-Williams C, Sliz E, Allara E, Fung WT, Surendran P, Zhang W, Jousilahti P, Kristiansson K, Salomaa V, Goodwin M, Hughes DA, Boehnke M, Fernandes Silva L, Yin X, Mahajan A, Neville MJ, van Zuydam NR, de Mutsert R, Li-Gao R, Mook-Kanamori DO, Demirkan A, Liu J, Noordam R, Trompet S, Chen Z, Kartsonaki C, Li L, Lin K, Hagenbeek FA, Hottenga JJ, Pool R, **Ikram MA**, van Meurs J, Haller T, Milaneschi Y, Kähönen M, Mishra PP, Joshi PK, Macdonald-Dunlop E, Mangino M, Zierer J, Acar IE, Hoyng CB, Lechanteur YTE, Franke L, Kurilshikov A, Zhernakova A, Beekman M, van den Akker EB, Kolcic I, Polasek O, Rudan I, Gieger C, Waldenberger M, Asselbergs FW; China Kadoorie Biobank Collaborative Group; Estonian Biobank Research Team; FinnGen; Hayward C, Fu J, den Hollander AI, Menni C, Spector TD, Wilson JF, Lehtimäki T, Raitakari OT, Penninx BWJH, Esko T, Walters RG, Jukema JW, Sattar N, **Ghanbari M**, Willems van Dijk K, Karpe F, McCarthy MI, Laakso M, Jarvelin MR, Timpson NJ, Perola M, Kooner JS, Chambers JC, van Duijn C, **Slagboom PE**, **Boomsma DI**, Danesh J, Ala-Korpela M, Butterworth AS, Kettunen J.

Nature. 2024 Mar 6. doi: 10.1038/s41586-024-07148-y. Online ahead of print. PMID: 38448586

<https://pubmed.ncbi.nlm.nih.gov/38448586/>

*Clarifying the biological and statistical assumptions of cross-sectional biological age predictors: an elaborate illustration using synthetic and real data.*

Sluiskes MH, Goeman JJ, Beekman M, **Slagboom PE**, Putter H, Rodríguez-Girondo M.

BMC Med Res Methodol. 2024 Mar 8;24(1):58. doi: 10.1186/s12874-024-02181-x. PMID: 38459475

<https://pubmed.ncbi.nlm.nih.gov/38459475/>

*Normative modelling of brain morphometry across the lifespan with CentileBrain: algorithm benchmarking and model optimisation.*

Ge R, Yu Y, Qi YX, Fan YN, Chen S, Gao C, Haas SS, New F, **Boomsma DI**, Brodaty H, Brouwer RM, Buckner R, Caseras X, Crivello F, Crone EA, Erk S, Fisher SE, Franke B, Glahn DC, Dannlowski U, Grotegerd D, Gruber O, Hulshoff Pol HE, Schumann G, Tamnes CK, Walter H, Wierenga LM, Jahanshad N, Thompson PM, Frangou S; ENIGMA Lifespan Working Group.

Lancet Digit Health. 2024 Mar;6(3):e211-e221. doi: 10.1016/S2589-7500(23)00250-9. PMID: 38395541

<https://pubmed.ncbi.nlm.nih.gov/38395541/>



*Genomics Research of Lifetime Depression in the Netherlands: The BIObanks Netherlands Internet Collaboration (BIONIC) Project.*

Huider F, Milaneschi Y, Hottenga JJ, Bot M, Rietman ML, Kok AAL, Galesloot TE, 't Hart LM, Rutters F, Blom MT, Rhebergen D, Visser M, Brouwer I, Feskens E, Hartman CA, Oldehinkel AJ, de Geus EJC, Kiemeny LA, Huisman M, Picavet HSJ, Verschuren WMM, van Loo HM, Penninx BWJH, **Boomsma DI**.

Twin Res Hum Genet. 2024 Mar 18:1-11. doi: 10.1017/thg.2024.4. Online ahead of print. PMID: 38497097

<https://pubmed.ncbi.nlm.nih.gov/38497097/>

*Genome-Wide Association Study of Obsessive-Compulsive Symptoms including 33,943 individuals from the general population.*

Strom NI, Burton CL, Iyegbe C, Silzer T, Antonyan L, Pool R, Lemire M, Crowley JJ, Hottenga JJ, Ivanov VZ, Larsson H, Lichtenstein P, Magnusson P, Rück C, Schachar R, Wu HM, Cath D, Crosbie J, Mataix-Cols D, **Boomsma DI**, Mattheisen M, Meier SM, Smit DJA, Arnold PD.

Mol Psychiatry. 2024 Mar 28. doi: 10.1038/s41380-024-02489-6. Online ahead of print. PMID: 38548983

<https://pubmed.ncbi.nlm.nih.gov/38548983/>

*Towards a clearer causal question underlying the association between cancer and dementia.*

Rojas-Saunero LP, van der Willik KD, Schagen SB, **Ikram MA**, Swanson SA.

Epidemiology. 2024 Mar 4. doi: 10.1097/EDE.0000000000001712. Online ahead of print. PMID: 38442423

<https://pubmed.ncbi.nlm.nih.gov/38442423/>

*Sarcopenia and Sarcopenic Obesity and Mortality Among Older People.*

Benz E, Pinel A, Guillet C, Capel F, Pereira B, De Antonio M, Pouget M, Cruz-Jentoft AJ, Eglseer D, Topinkova E, Barazzoni R, Rivadeneira F, **Ikram MA**, Steur M, Voortman T, Schoufour JD, Weijs PJM, Boirie Y.

JAMA Netw Open. 2024 Mar 4;7(3):e243604. doi: 10.1001/jamanetworkopen.2024.3604. PMID: 38526491

<https://pubmed.ncbi.nlm.nih.gov/38526491/>

*Genome-wide forward genetic screening to identify receptors and proteins mediating nanoparticle uptake and intracellular processing.*

Montizaan D, Bartucci R, Reker-Smit C, de Weerd S, Åberg C, **Guryev V**, Spierings DCJ, Salvati A.

Nat Nanotechnol. 2024 Mar 19. doi: 10.1038/s41565-024-01629-x. Online ahead of print. PMID: 38504023

<https://pubmed.ncbi.nlm.nih.gov/38504023/>

*A revamped rat reference genome improves the discovery of genetic diversity in laboratory rats.*

de Jong TV, Pan Y, Rastas P, Munro D, Tutaj M, Akil H, Benner C, Chen D, Chitre AS, Chow W, Colonna V, Dalgard CL, Demos WM, Doris PA, Garrison E, Geurts AM, Gunturkun HM, **Guryev V**, Hourlier T, Howe K, Huang J, Kalbfleisch T, Kim P, Li L, Mahaffey S, Martin FJ, Mohammadi P, Ozel AB, Poleskaya O, Pravenec M, Prins P, Sebat J, Smith JR, Solberg Woods LC, Tabakoff B, Tracey A, Uliano-Silva M, Villani F, Wang H, Sharp BM, Telese F, Jiang Z, Saba L, Wang X, Murphy TD, Palmer AA, Kwitek AE, Dwinell MR, Williams RW, Li JZ, Chen H.

Cell Genom. 2024 Mar 22:100527. doi: 10.1016/j.xgen.2024.100527. Online ahead of print. PMID: 38537634

<https://pubmed.ncbi.nlm.nih.gov/38537634/>

*Systematic reanalysis of genomic data by diagnostic laboratories: a scoping review of ethical, economic, legal and (psycho)social implications.*

van der Geest MA, Maeckelberghe ELM, van Gijn ME, Lucassen AM, **Swertz MA**, van Langen IM, Plantinga M.

Eur J Hum Genet. 2024 Mar 14. doi: 10.1038/s41431-023-01529-z. Online ahead of print. PMID: 38480795 Review.

<https://pubmed.ncbi.nlm.nih.gov/38480795/>

*Expanding the repertoire reveals recurrent, cryptic and hematopoietic HLA class I minor histocompatibility antigens.*

Fuchs KJ, van de Meent M, Honders MW, Khatri I, Kester MGD, Koster EAS, Koutsoumpli G, de Ru AH, Van Bergen CAM, van Veelen PA, **'t Hoen PAC**, van Balen P, van den Akker EB, Veelken H, Halkes CJJ, Falkenburg JHF, Griffioen M.

Blood. 2024 Mar 1:blood.2023022343. doi: 10.1182/blood.2023022343. Online ahead of print. PMID: 38427583

<https://pubmed.ncbi.nlm.nih.gov/38427583/>

*Tandem Mass Spectrometry across Platforms.*

Hoang C, Uritboonthai W, Hoang L, Billings EM, Aisporna A, Nia FA, Derks RJE, Williamson JR, **Giera M**, Siuzdak G.

Anal Chem. 2024 Mar 26. doi: 10.1021/acs.analchem.3c05576. Online ahead of print. PMID: 38529642

<https://pubmed.ncbi.nlm.nih.gov/38529642/>

*Mitochondrial H<sub>2</sub>O<sub>2</sub> release does not directly cause damage to chromosomal DNA.*

van Soest DMK, Polderman PE, den Toom WTF, Keijer JP, van Roosmalen MJ, Leyten TMF, Lehmann J, Zwakenberg S, De Henau S, van Boxtel R, **Burgering BMT**, Dansen TB.

Nat Commun. 2024 Mar 28;15(1):2725. doi: 10.1038/s41467-024-47008-x. PMID: 38548751

<https://pubmed.ncbi.nlm.nih.gov/38548751/>

*Towards A Wireless Image Sensor for Real-Time Fluorescence Microscopy in Cancer Therapy.*

Rabbani R, Najafiaghdam H, Roschelle M, Papageorgiou EP, Zhao BR, **Ghanbari MM**, Muller R, Stojanovic V, Anwar M.

IEEE Trans Biomed Circuits Syst. 2024 Mar 13;PP. doi: 10.1109/TBCAS.2024.3374886. Online ahead of print. PMID: 38457321

<https://pubmed.ncbi.nlm.nih.gov/38457321/>

*The effect of Artemisia annua L. aqueous and methanolic extracts on insulin signaling in liver of HFD/STZ diabetic mice.*

Reza Seyedi Moqadam SM, Lamuki MS, Sadeghimahalli F, **Ghanbari M**.

J Complement Integr Med. 2024 Mar 15. doi: 10.1515/jcim-2024-0011. Online ahead of print. PMID: 38485514

<https://pubmed.ncbi.nlm.nih.gov/38485514/>

## February

*Genome sequencing as a generic diagnostic strategy for rare disease.*

Schobers G, Derks R, den Ouden A, Swinkels H, van Reeuwijk J, Bosgoed E, Lugtenberg D, Sun SM, Corominas Galbany J, Weiss M, Blok MJ, Olde Keizer RACM, Hofste T, Hellebrekers D, de Leeuw N, Stegmann A, Kamsteeg EJ, Paulussen ADC, Ligtenberg MJL, Bradley XZ, Peden J, Gutierrez A, Pullen A, Payne T, **Gilissen C**, van den Wijngaard A, Brunner HG, **Nelen M**, Yntema HG, **Vissers LELM**.

Genome Med. 2024 Feb 14;16(1):32. doi: 10.1186/s13073-024-01301-y. PMID: 38355605

<https://pubmed.ncbi.nlm.nih.gov/38355605/>

*Development of an Untargeted LC-MS Metabolomics Method with Postcolumn Infusion for Matrix Effect Monitoring in Plasma and Feces.*

Zhu P, Dubbelman AC, Hunter C, Genangeli M, Karu N, Harms A, **Hankemeier T**.

J Am Soc Mass Spectrom. 2024 Mar 6;35(3):590-602. doi: 10.1021/jasms.3c00418. Epub 2024 Feb 21. PMID: 38379502

<https://pubmed.ncbi.nlm.nih.gov/38379502/>

*A comprehensive UHPLC-MS/MS method for metabolomics profiling of signaling lipids: Markers of oxidative stress, immunity and inflammation.*

Yang W, Schoeman JC, Di X, Lamont L, Harms AC, **Hankemeier T**.

Anal Chim Acta. 2024 Apr 8;1297:342348. doi: 10.1016/j.aca.2024.342348. Epub 2024 Feb 10. PMID: 38438234

<https://pubmed.ncbi.nlm.nih.gov/38438234/>

*Adipocyte p53 coordinates the response to intermittent fasting by regulating adipose tissue immune cell landscape.*

Reinisch I, Michenthaler H, Sulaj A, Moyschewitz E, Krstic J, Galhuber M, Xu R, Riahi Z, Wang T, Vujic N, Amor M, Zenezini Chiozzi R, Wabitsch M, Kolb D, Georgiadi A, Glawitsch L, Heitzer E, Schulz TJ, Schupp M, Sun W, Dong H, Ghosh A, Hoffmann A, Kratky D, Hinte LC, von Meyenn F, **Heck AJR**, Blüher M, Herzig S, Wolfrum C, Prokesch A.

Nat Commun. 2024 Feb 15;15(1):1391. doi: 10.1038/s41467-024-45724-y. PMID: 38360943

<https://pubmed.ncbi.nlm.nih.gov/38360943/>

*CAMSAPs and nucleation-promoting factors control microtubule release from  $\gamma$ -TuRC.*

Rai D, Song Y, Hua S, **Stecker K**, Monster JL, Yin V, Stucchi R, Xu Y, Zhang Y, Chen F, Katrukha EA, Altelaar M, **Heck AJR**, Wieczorek M, Jiang K, Akhmanova A.

Nat Cell Biol. 2024 Feb 29. doi: 10.1038/s41556-024-01366-2. Online ahead of print.  
PMID: 38424271

<https://pubmed.ncbi.nlm.nih.gov/38424271/>

*Validation of biomarkers of aging.*

Moqri M, Herzog C, Poganik JR, Ying K, Justice JN, Belsky DW, Higgins-Chen AT, Chen BH, Cohen AA, Fuellen G, Hägg S, Marioni RE, Widschwendter M, Fortney K, Fedichev PO, Zhavoronkov A, Barzilai N, Lasky-Su J, Kiel DP, Kennedy BK, Cummings S, **Slagboom PE**, Verdin E, Maier AB, Sebastiano V, Snyder MP, Gladyshev VN, Horvath S, Ferrucci L.

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