

Advancing metabolic disease research with Thermo Scientific™ Mass Spectrometry

Research publications

Diabetes

[Targeted serum proteomics of longitudinal samples from newly diagnosed youth with type 1 diabetes distinguishes markers of disease and C-peptide trajectory](#)

Moulder R, Välikangas T, Hirvonen MK, Suomi T, Brorsson CA, Lietzén N, Brugggraber SFA, Overbergh L, Dunger DB, Peakman M, Chmura PJ, Brunak S, Schulte AM, Mathieu C, Knip M, Elo LL, Lahesmaa R; INNODIA consortium.

Diabetologia. 2023 Nov;66(11):1983-1996.

[Organ-specific metabolic pathways distinguish prediabetes, type 2 diabetes, and normal tissues](#)

Diamanti K, Cavalli M, Pereira MJ, Pan G, Castillejo-López C, Kumar C, Mundt F, Komorowski J, Deshmukh AS, Mann M, Korsgren O, Eriksson JW, Wadelius C.

Cell Rep Med. 2022 Oct 18;3(10):100763.

[Exercise timing influences multi-tissue metabolome and skeletal muscle proteome profiles in type 2 diabetic patients – A randomized crossover trial](#)

Savikj M, Stocks B, Sato S, Caidahl K, Krook A, Deshmukh AS, Zierath JR, Wallberg-Henriksson H.

Metabolism. 2022 Oct;135:155268.

[The human type 2 diabetes-specific visceral adipose tissue proteome and transcriptome in obesity](#)

Carruthers NJ, Strieder-Barboza C, Caruso JA, Flesher CG, Baker NA, Kerk SA, Ky A, Ehlers AP, Varban OA, Lyssiotis CA, Lumeng CN, Stemmer PM, O'Rourke RW.

Sci Rep. 2021 Aug 30;11(1):17394.

[Serum albumin cysteine trioxidation is a potential oxidative stress biomarker of type 2 diabetes mellitus](#)

Paramasivan S, Adav SS, Ngan SC, Dalan R, Leow MK, Ho HH, Sze SK.

Sci Rep. 2020 Apr 15;10(1):6475.

Liver diseases

[Tandem mass tag-based quantitative proteomic profiling identifies candidate serum biomarkers of drug-induced liver injury in humans](#)

Ravindra KC, Vaidya VS, Wang Z, Federspiel JD, Virgen-Slane R, Everley RA, Grove JL, Stephens C, Ocana MF, Robles-Díaz M, Isabel Lucena M, Andrade RJ, Atallah E, Gerbes AL, Weber S, Cortez-Pinto H, Fowell AJ, Hussaini H, Björnsson ES, Patel J, Stirnimann G, Verma S, Elsharkawy AM, Griffiths WJH, Hyde C, Dear JW, Aithal GP, Ramaiah SK.

Nat Commun. 2023 Mar 3;14(1):1215.

[Noninvasive proteomic biomarkers for alcohol-related liver disease](#)

Niu L, Thiele M, Geyer PE, Rasmussen DN, Webel HE, Santos A, Gupta R, Meier F, Strauss M, Kjaergaard M, Lindvig K, Jacobsen S, Rasmussen S, Hansen T, Krag A, Mann M.

Nat Med. 2022 Jun;28(6):1277-1287.

[Urine Proteome in Distinguishing Hepatic Steatosis in Patients with Metabolic-Associated Fatty Liver Disease](#)

Liu CH, Zheng S, Wang S, Wu D, Jiang W, Zeng Q, Wei Y, Zhang Y, Tang H.

Diagnostics (Basel). 2022 Jun 7;12(6):1412.

[Dynamic human liver proteome atlas reveals functional insights into disease pathways](#)

Niu L, Geyer PE, Gupta R, Santos A, Meier F, Doll S, Wewer Albrechtsen NJ, Klein S, Ortiz C, Uschner FE, Schierwagen R, Trebicka J, Mann M.

Mol Syst Biol. 2022 May;18(5):e10947.

[Proteomics Indicates Lactate Dehydrogenase Is Prognostic in Acetaminophen-Induced Acute Liver Failure Patients and Reveals Altered Signaling Pathways](#)

Vazquez JH, Kennon-McGill S, Byrum SD, Mackintosh SG, Jaeschke H, Williams DK, Lee WM, Dranoff JA, McGill MR; Acute Liver Failure Study Group.

Toxicol Sci. 2022 Apr 26;187(1):25-34.

Review articles

[Unveiling the future of metabolic medicine: omics technologies driving personalized solutions for precision treatment of metabolic disorders](#)

Wu X, Xu M, Geng M, Chen S, Little PJ, Xu S, Weng J.

Biochem Biophys Res Commun. 2023 Nov 19;682:1-20.

[Targeting protein modifications in metabolic diseases: molecular mechanisms and targeted therapies](#)

Singh S, Sama DK, Verma V, Nagpal R, Kumar M.

Signal Transduct Target Ther. 2023 May 27;8(1):220.

[Proteomics in Inherited Metabolic Disorders](#)

Chantada-Vázquez MDP, Bravo SB, Barbosa-Gouveia S, Alvarez JV, Couce ML.

Int J Mol Sci. 2022 Nov 25;23(23):14744.

[Metabolomics and Proteomics in Type 2 Diabetes](#)

Chen ZZ, Gerszten RE.

Circ Res. 2020 May 22;126(11):1613-1627.

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