

## List of publications – Alzheimer's disease

### 2020

Demarest TG, Varma VR, Estrada D, Babbar M, Basu S, Mahajan UV, Moaddel R, Croteau DL, Thambisetty M, Mattson MP, Bohr VA (2020) Biological sex and DNA repair deficiency drive Alzheimer's disease via systemic metabolic remodeling and brain mitochondrial dysfunction Acta Neuropathologica; <https://doi.org/10.1007/s00401-020-02152-8>

Ahmed AT, MahmoudianDehkordi S, Bhattacharyya S, Arnold M, Liu D, Neavin D et al. (2020): Acylcarnitine metabolomic profiles inform clinically-defined major depressive phenotypes. Journal of Affective Disorders; <https://doi.org/10.1016/j.jad.2019.11.122>.

Arnold M, Nho K, Kueider-Paisley A, Massaro T, Huynh K, Brauner B et al. (2020): Sex and APOE ε4 genotype modify the Alzheimer's disease serum metabolome. Nat Commun; <https://doi.org/10.1038/s41467-020-14959-w>

Huo Z, Yu L, Yang J, Zhu Y, Bennett DA, Zhao J (2020): Brain and blood metabolome for Alzheimer's dementia: Findings from a targeted metabolomics analysis. Neurobiology of Aging; <https://doi.org/10.1016/j.neurobiolaging.2019.10.014>

Jaggar M, Rea K, Spicak S, Dinan TG, Cryan JF (2020): You've Got Male: Sex and the Microbiota-Gut Brain Axis Across the Lifespan. Front Neuroendocrinol; 56:100815. <https://doi.org/10.1016/j.yfrne.2019.100815>

Li D, Mielke MM, Bell WR, Reilly C, Zhang L, Lin FV et al. (2020): Blood biomarkers as surrogate endpoints of treatment responses to aerobic exercise and cognitive training (ACT) in amnesic mild cognitive impairment: the blood biomarkers study protocol of a randomized controlled trial (the ACT Trial). Trials; <https://doi.org/10.1186/s13063-019-3798-1>

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Tondo M, Wasek B, Escola-Gil JC, Gonzalo-Calvo D de, Harmon C, Arning E et al. (2020): Altered Brain Metabolome Is Associated with Memory Impairment in the rTg4510 Mouse Model of Tauopathy. Metabolites; <https://doi.org/10.3390/metabo10020069>

## 2019

Abu Ahmad N, Raizman M, Weizmann N, Wasek B, Arning E, Bottiglieri T et al. (2019): Betaine attenuates pathology by stimulating lipid oxidation in liver and regulating phospholipid metabolism in brain of methionine-choline-deficient rats. FASEB J.; <https://doi.org/10.1096/fj.201802683R>

Audano M, Pedretti S, Crestani M, Caruso D, Fabiani E de, Mitro N (2019): Mitochondrial dysfunction increases fatty acid  $\beta$ -oxidation and translates into impaired neuroblast maturation. FEBS Lett; <https://doi.org/10.1002/1873-3468.13584>

Bhattacharyya S, Dunlop BW, MahmoudianDehkordi S, Ahmed AT, Louie G, Frye MA et al. (2019): Pilot Study of Metabolomic Clusters as State Markers of Major Depression and Outcomes to CBT Treatment. Front Neurosci; <https://doi.org/10.3389/fnins.2019.00926>

Casasnovas C, Ruiz M, Schlüter A, Naudí A, Fourcade S, Veciana M et al. (2019): Biomarker Identification, Safety, and Efficacy of High-Dose Antioxidants for Adrenomyeloneuropathy: a Phase II Pilot Study. Neurotherapeutics; <https://doi.org/10.1007/s13311-019-00735-2>

Chen K-H, Weng W-C, Huang W-Y, Tang H-Y, Cheng M-L (2019): The Differences of Serum Metabolites between Patients with Early-stage Alzheimer's Disease and Mild Cognitive Impairment. Front Neurol; <https://doi.org/10.3389/fneur.2019.01223>

Chovancova O, Stafurikova A, Macekova D, Kiskova T, Rabcan J, Kostolny J (2019): Impact of Metabolomics on Depression using Data Mining Techniques. In: 2019 10th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS): IEEE; <https://doi.org/10.1109/IDAACS.2019.8924245>

Costa AC, Joaquim HPG, Forlenza OV, Gattaz WF, Talib LL (2019): Three plasma metabolites in elderly patients differentiate mild cognitive impairment and Alzheimer's disease: a pilot study. Eur Arch Psychiatry Clin Neurosci; <https://doi.org/10.1007/s00406-019-01034-9>

Fagotti J, Targa ADS, Rodrigues LS, Nosedá ACD, Dorieux FWC, Scarante FF et al. (2019): Chronic sleep restriction in the rotenone Parkinson's disease model in rats reveals peripheral early-phase biomarkers. Sci Rep; <https://doi.org/10.1038/s41598-018-37657-6>

Jiang Y, Zhu Z, Shi J, An Y, Zhang K, Wang Y et al. (2019): Metabolomics in the Development and Progression of Dementia: A Systematic Review. Front Neurosci; <https://doi.org/10.3389/fnins.2019.00343>

Joaquim HPG, Costa AC, Forlenza OV, Gattaz WF, Talib LL (2019): Decreased plasmatic spermidine and increased spermine in mild cognitive impairment and Alzheimer's disease patients. Archives of Clinical Psychiatry; <https://doi.org/10.1590/0101-60830000000209>

Li D, Misialek JR, Jack CR, Mielke MM, Knopman D, Gottesman R et al. (2019): Plasma Metabolites Associated with Brain MRI Measures of Neurodegeneration in Older Adults in the Atherosclerosis Risk in Communities-Neurocognitive Study (ARIC-NCS). Int J Mol Sci; <https://doi.org/10.3390/ijms20071744>

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Ratuszny D, Sühs K-W, Novoselova N, Kuhn M, Kaefer V, Skripuletz T et al. (2019): Identification of Cerebrospinal Fluid Metabolites as Biomarkers for Enterovirus Meningitis. Int J Mol Sci; <https://doi.org/10.3390/ijms20020337>

Snowden SG, Ebshiana AA, Hye A, Pletnikova O, O'Brien R, an Yang et al. (2019): Neurotransmitter Imbalance in the Brain and Alzheimer's Disease Pathology. J. Alzheimers Dis; <https://doi.org/10.3233/JAD-190577>

St John-Williams L, MahmoudianDehkordi S, Arnold M, Massaro T, Blach C, Kastenmüller G et al. (2019): Bile acids targeted metabolomics and medication classification data in the ADNI1 and ADNI2 cohorts. Sci Data; <https://doi.org/10.1038/s41597-019-0181-8>

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An Y, Varma VR, Varma S, Casanova R, Dammer E, Pletnikova O et al. (2018): Evidence for brain glucose dysregulation in Alzheimer's disease. Alzheimer's & dementia; <https://doi.org/10.1016/j.jalz.2017.09.011>

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Chen T, You Y, Xie G, Zheng X, Zhao A, Liu J et al. (2018): Strategy for an Association Study of the Intestinal Microbiome and Brain Metabolome Across the Lifespan of Rats. Anal. Chem.; <https://doi.org/10.1021/acs.analchem.7b02859>

Fiandaca MS, Gross TJ, Johnson TM, Hu MT, Evetts S, Wade-Martins R et al. (2018): Potential Metabolomic Linkage in Blood between Parkinson's Disease and Traumatic Brain Injury. Metabolites; <https://doi.org/10.3390/metabo8030050>

González-Domínguez R, Sayago A, Fernández-Recamales Á (2018): High-Throughput Direct Mass Spectrometry-Based Metabolomics to Characterize Metabolite Fingerprints Associated with Alzheimer's Disease Pathogenesis. Metabolites; <https://doi.org/10.3390/metabo8030052>

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Tao Q, Zhu H, Chen X, Stern RA, Kowall N, Au R et al. (2018): Pramlintide: The Effects of a Single Drug Injection on Blood Phosphatidylcholine Profile for Alzheimer's Disease. *J. Alzheimers Dis.*; <https://doi.org/10.3233/JAD-170948>

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