

PERSONAL INFORMATION

Family name, First name: Sergi, Domenico

Researcher unique identifiers: ORCID: 0000-0002-3001-410X, Research ID: Q-5585-2017,

Scopus Author ID: 57195644352, Google scholar:

<https://scholar.google.it/citations?user=KhE62IcAAAAAJ&hl=en&authuser=1>

Nationality: Italian

URL for web site: <https://docente.unife.it/docenti-en/domenico.sergi/>

• EDUCATION

2016 PhD in Human Nutrition
Rowett Institute, University of Aberdeen, Scotland (UK)

2012 MSc in Science of Nutrition, awarded cum laude
University of Calabria, Italy

• CURRENT POSITIONS

2024 – ongoing Associate Professor in Nutrition and dietetics
Department of Translational Medicine, University of Ferrara, Italy

• PREVIOUS POSITIONS

2021 – 2024 Assistant Professor in Nutrition and dietetics
Department of Translational Medicine, University of Ferrara, Italy

2018 – 2023 Affiliate Lecturer
Adelaide Medical School, University of Adelaide, Australia

02/2021 - 06/2021 Professor (tenure-track) in Metabolism and Nutrition (initial contract of 3.5 years)
Department of Medical Biology, University of Quebec at Trois-Rivières, Canada

2017 – 2020 Postdoctoral Research Fellow, Nutrition and Health Program, Commonwealth
Scientific and Industrial Research Organisation (CSIRO), Australia

02/2017 - 07/2017 Postdoctoral Researcher (initial contract of 2 years), Faculty of Health, University
of Maastricht, The Netherlands

• FELLOWSHIPS AND AWARDS

2017 – 2020 Postdoctoral Fellowship: Novel approaches in nutrition for health, funded by CSIRO,
Australia.

2012 – 2016 PhD scholarship (£100,097) on obesity and metabolic health, funded by Scottish
Universities Life Sciences Alliance – MSD and the University of Aberdeen, UK.

2016 Selected as one of top-ten PhD students to represent the University of Aberdeen at
the International Student Research Forum 2016 held at the University of Chinese
Academy of Sciences, China

2015 Principal's Excellence Fund (£500) University of Aberdeen, UK

• MAJOR GRANTS

2018 – 2020 Emerging mitochondrial targets in metabolic diseases (**\$120,000 AUD**)
Role: **Project leader**. Project funded by funded by CSIRO, Future Science Platform

- **TEACHING ACTIVITIES**

- 2021 Professor (tenure-track) – Metabolism and nutrition, University of Quebec at Trois-Rivières, Canada.
- 2021 Assistant Professor (tenure-track)/Associate Professor – Nutrition and dietetics, Department of Translational Medicine, University of Ferrara, Italy.
Courses: Physiopathology of nutrition, Physiopathology of metabolic diseases, Human Nutrition, Nutritional aspects of school catering, Molecular and cellular basis of nutrition, Nutrition and nutraceuticals in metabolic diseases: molecular and translational aspects.

- **INSTITUTIONAL RESPONSIBILITIES**

- 2021 – present Co-responsible of the approval for the student enrolled in the Master degree in Biotechnology for translational medicine, Department of Translational Medicine, University of Ferrara, Italy.
- 2021 – present Erasmus student advisor (Outbound), for the student enrolled in the Master degree in Biotechnology for translational medicine, Department of Translational Medicine, University of Ferrara, Italy.

- **EDITORIAL ACTIVITIES**

- 2018 - 2021 Reviewer for 22 different peer reviewed Journals
Guest editor: *Frontiers in Nutrition*, *Frontiers in Physiology*, *Frontiers in Molecular Biosciences*, *Medicina (MDPI)*, *Foods (MDPI)*
Topical Advisory Panel Member: *Foods (MDPI)*
Editorial Board Member: *Frontiers in Nutrition (Frontiers)*, *Medicina (MDPI)*, *BMC Nutrition (Spinger Nature)*, *Mediators of Inflammation (Hindawi)*, *Nutrition Research Reviews*
- 2021 Ad hoc grant reviewer for: National Science Centre, Poland; Diabetes Fonds, The Netherlands

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

- 2022 Member of the Italian Society for the study of atherosclerosis
- 2021 Member of the *Research Network on cardiometabolic health, diabetes and obesity*, Canada
- 2021 Member of the *Italian Society of Human Nutrition (SINU)*
- 2017 - 2022 Member of the *Nutrition Society of Australia*, Australia
- 2015 - 2016; 2021 Member of *The Nutrition Society*, United Kingdom.

- **PEER-REVIWED PUBLICATIONS**

1. **Sergi, D.**; Zauli, E.; Celeghini, C.; Previati, M.; Zauli, G. Ceramides as the molecular link between impaired lipid metabolism, saturated fatty acid intake and insulin resistance: are all saturated fatty acids to be blamed for ceramide-mediated lipotoxicity? *Nutr Res Rev* 2024, 10.1017/S0954422424000179, 1-11, doi:10.1017/S0954422424000179.
2. **Sergi, D.**; Sanz, J.M.; Trentini, A.; Bonaccorsi, G.; Angelini, S.; Castaldo, F.; Morrone, S.; Spaggiari, R.; Cervellati, C.; Passaro, A., et al. HDL-Cholesterol Subfraction Dimensional Distribution Is Associated with Cardiovascular Disease Risk and Is Predicted by Visceral Adiposity and Dietary Lipid Intake in Women. *Nutrients* 2024, 16, doi:10.3390/nu16101525.
3. Passaro, A.; Sanz, J.M.; Naumovski, N.; **Sergi, D.** The complex interplay between oxinflammation, mitochondrial dysfunction and lipotoxicity: focus on their role in the pathogenesis of skeletal muscle insulin resistance and modulation by dietary fatty acids. *Advances in Redox Research* 2024, 100100.
4. Spaggiari, R.; Angelini, S.; Di Vincenzo, A.; Scaglione, G.; Morrone, S.; Finello, V.; Fagioli, S.; Castaldo, F.; Sanz, J.M.; **Sergi, D.**, et al. Ceramides as Emerging Players in Cardiovascular Disease: Focus on Their Pathogenetic Effects and Regulation by Diet. *Adv Nutr* 2024, 15, 100252, doi:10.1016/j.advnut.2024.100252.
5. Harriden, B.; Speer, K.; **Sergi, D.**; Gill, C.I.R.; Popovic-Djordjevic, J.; McKune, A.; Naumovski, N. The phytochemical composition and unexplored potential of Australian native plants for application in physical activity-related muscle recovery and inflammation: a literature review. *Food Funct* 2024, 15, 9718-9733, doi:10.1039/d4fo02067g.
6. Renaud, J.; Clouet, A.; Costa, G.; Beaulieu, J.; **Sergi, D.**; Martinoli, M.-G. Long-term diabetic hyperglycaemia modifies social behaviour in rats. *Endocrine and Metabolic Science* 2024, 100197.
7. **Sergi, D.**; Melloni, M.; Passaro, A.; Neri, L.M. Influence of Type 2 Diabetes and Adipose Tissue Dysfunction on Breast Cancer and Potential Benefits from Nutraceuticals Inducible in Microalgae. *Nutrients* 2024, 16, doi:10.3390/nu16193243.
8. Kouvari, M.; **Sergi, D.**; Zec, M.; Naumovski, N. Editorial: Nutrition in Prevention and Management of Non-alcoholic Fatty Liver Disease. *Frontiers in Nutrition* 10, 1212363.
9. Sanz, J.M.; D'Amuri, A.; **Sergi, D.**; Angelini, S.; Fortunato, V.; Favari, E.; Vigna, G.; Zuliani, G.; Dalla Nora, E.; Passaro, A. Cholesterol efflux capacity is increased in subjects with familial hypercholesterolemia in a retrospective case-control study. *Sci Rep* 2023, 13, 8415, doi:10.1038/s41598-023-35357-4.
10. **Sergi, D.**; Sanz, J.M.; Lazzer, S.; Brombo, G.; Zuliani, G.; Biolo, G.; Simunic, B.; Pisot, R.; Dalla Nora, E.; Passaro, A. Interleukin-18 Is a Potential Biomarker Linking Dietary Fatty Acid Quality and Insulin Resistance: Results from a Cross-Sectional Study in Northern Italy. *Nutrients* 2023, 15, doi:10.3390/nu15071782.
11. Melloni, M.; **Sergi, D.** #; Simioni, C.; Passaro, A.; Neri, L.M. Microalgae as a Nutraceutical Tool to Antagonize the Impairment of Redox Status Induced by SNPs: Implications on Insulin Resistance. *Biology (Basel)* 2023, 12, doi:10.3390/biology12030449.

12. **Sergi, D.**; Zauli, E.; Tisato, V.; Secchiero, P.; Zauli, G.; Cervellati, C. Lipids at the Nexus between Cerebrovascular Disease and Vascular Dementia: The Impact of HDL-Cholesterol and Ceramides. *Int J Mol Sci* 2023, 24, doi:10.3390/ijms24054403.
13. Kouvari, M.; D'Cunha N.M.; Tsiampalis, T.; Zec, M.; **Sergi, D.**; Travica, N.; Marx, W.; McKune, A.J.; Panagiotakos, D.B.; Naumovski, N. Metabolically Healthy Overweight and Obesity, Transition to Metabolically Unhealthy Status and Cognitive Function: Results from the Framingham Offspring Study. *Nutrients* 2023, 15, doi:10.3390/nu15051289.
14. Romani, A.; **Sergi, D.** #; Zauli, E.; Voltan, R.; Lodi, G.; Vaccarezza, M.; Caruso, L.; Previati, M.; Zauli, G. Nutrients, herbal bioactive derivatives and commensal microbiota as tools to lower the risk of SARS-CoV-2 infection. *Front Nutr* 2023, 10, 1152254, doi:10.3389/fnut.2023.1152254.
15. Bordoni, L.; Zec, M.; Naumovski, N.; **Sergi, D.** Editorial: The role of dietary fatty acids in metabolic health. *Front Physiol* 2023, 14, 1211151, doi:10.3389/fphys.2023.1211151.
16. **Sergi, D.**; Zauli, E.; Casciano, F.; Secchiero, P.; Zauli, G.; Fields, M.; Melloni, E. Palmitic Acid Induced a Long-Lasting Lipotoxic Insult in Human Retinal Pigment Epithelial Cells, which Is Partially Counteracted by TRAIL. *Antioxidants (Basel)* 2022, 11, doi:10.3390/antiox11122340.
17. Cervellati, C.; **Sergi, D.**; Loria-Kohen, V.; Trentini, A. Editorial: Endogenous and exogenous factors influencing the function and metabolism of lipoproteins. *Front Mol Biosci* 2022, 9, 1097963, doi:10.3389/fmolb.2022.1097963.
18. Fisette, A.; **Sergi, D.** #; Breton-Morin, A.; Descoteaux, S.; Martinoli, M.G. New Insights on the Role of Bioactive Food Derivatives in Neurodegeneration and Neuroprotection. *Curr Pharm Des* 2022, 28, 3068-3081, doi:10.2174/1381612828666220919085742.
19. Suriano, F.; Nystrom, E.E.L.; **Sergi, D.**; Gustafsson, J.K. Diet, microbiota, and the mucus layer: The guardians of our health. *Front Immunol* 2022, 13, 953196, doi:10.3389/fimmu.2022.953196.
20. **Sergi, D.**; Bordoni, L. Editorial: Molecular nutrition as preventive tool in non-communicable diseases: Mechanistic insights and risk biomarkers. *Front Nutr* 2022, 9, 1005397, doi:10.3389/fnut.2022.1005397.
21. Kouvari, M.; **Sergi, D.**; D'Cunha, N.M.; Bulman, A.; Panagiotakos, D.B.; Naumovski, N. Is Non-Alcoholic Fatty Liver Disease Connected with Cognition? The Complex Interplay between Liver and Brain. *Diabetology* 2022, 3, 355-363.
22. D'Cunha, N.M.; **Sergi, D.**; Lane, M.M.; Naumovski, N.; Gamage, E.; Rajendran, A.; Kouvari, M.; Gauci, S.; Dissanayaka, T.; Marx, W., et al. The Effects of Dietary Advanced Glycation End-Products on Neurocognitive and Mental Disorders. *Nutrients* 2022, 14, doi:10.3390/nu14122421.
23. Sanz, J.M.; **Sergi, D.**; Colombari, S.; Capatti, E.; Situlin, R.; Biolo, G.; Di Girolamo, F.G.; Lazzer, S.; Simunic, B.; Pisot, R., et al. Dietary Acid Load but Not Mediterranean Diet Adherence Score Is Associated With Metabolic and Cardiovascular Health State: A Population Observational Study From Northern Italy. *Front Nutr* 2022, 9, 828587, doi:10.3389/fnut.2022.828587.
24. Kashif, R.R.; D'Cunha, N.M.; Mellor, D.D.; Alexopoulos, N.I.; **Sergi, D.**; Naumovski, N. Prickly Pear Cacti (*Opuntia* spp.) Cladodes as a Functional Ingredient for Hyperglycemia Management: A Brief Narrative Review. *Medicina (Kaunas)* 2022, 58, doi:10.3390/medicina58020300.

25. Bochenek, H.; Krga, I.; **Sergi, D.**; Kouvari, M.; Zec, M.; Naumovski, N. Dietary patterns, caloric restrictions for management of cardiovascular disease and cancer; a brief review. *Rev Cardiovasc Med* 2022, 23, 41, doi:10.31083/j.rcm2301041.
26. Kouvari, M.; D'Cunha, N.M.; Travica, N.; **Sergi, D.**; Zec, M.; Marx, W.; Naumovski, N. Metabolic Syndrome, Cognitive Impairment and the Role of Diet: A Narrative Review. *Nutrients* 2022, 14, doi:10.3390/nu14020333.
27. Beaulieu J, Costa G, Renaud J, Moitie A, Glemet H, **Sergi D**, Martinoli MG (2021) The Neuroinflammatory and Neurotoxic Potential of Palmitic Acid Is Mitigated by Oleic Acid in Microglial Cells and Microglial-Neuronal Co-cultures. *Mol Neurobiol* 58 (6):3000-3014. doi:10.1007/s12035-021-02328-7
28. **Sergi D**, Luscombe-Marsh N, Naumovski N, Abeywardena M, O'Callaghan N (2021) Palmitic Acid, but Not Lauric Acid, Induces Metabolic Inflammation, Mitochondrial Fragmentation, and a Drop in Mitochondrial Membrane Potential in Human Primary Myotubes. *Front Nutr* 8:663838. doi:10.3389/fnut.2021.663838
29. **Sergi D**, Gelinas A, Beaulieu J, Renaud J, Tardif-Pellerin E, Guillard J, Martinoli MG (2021) Anti-Apoptotic and Anti-Inflammatory Role of Trans epsilon-Viniferin in a Neuron-Glia Co-Culture Cellular Model of Parkinson's Disease. *Foods* 10 (3). doi:10.3390/foods10030586
30. Stonehouse W, **Sergi D**, Benassi-Evans B, James-Martin G, Johnson N, Thompson CH, Abeywardena M (2021) Eucaloric diets enriched in palm olein, cocoa butter, and soybean oil did not differentially affect liver fat concentration in healthy participants: a 16-week randomized controlled trial. *Am J Clin Nutr* 113 (2):324-337. doi:10.1093/ajcn/nqaa347
31. **Sergi D**, Luscombe-Marsh N, Heilbronn LK, Birch-Machin M, Naumovski N, Lionetti L, Proud CG, Abeywardena MY, O'Callaghan N (2021) The Inhibition of Metabolic Inflammation by EPA Is Associated with Enhanced Mitochondrial Fusion and Insulin Signaling in Human Primary Myotubes. *J Nutr*. doi:10.1093/jn/nxaa430
32. Naumovski N, **Sergi D** (2021) Food Bioactives: Impact on Brain and Cardiometabolic Health-Findings from In Vitro to Human Studies. *Foods* 10 (5). doi:10.3390/foods10051045
33. **Sergi D**, Boulestin H, Campbell FM, Williams LM (2021) The Role of Dietary Advanced Glycation End Products in Metabolic Dysfunction. *Mol Nutr Food Res* 65 (1):e1900934. doi:10.1002/mnfr.201900934
34. **Sergi D**, Morris AC, Kahn DE, McLean FH, Hay EA, Kubitz P, MacKenzie A, Martinoli MG, Drew JE, Williams LM (2018) Palmitic acid triggers inflammatory responses in N42 cultured hypothalamic cells partially via ceramide synthesis but not via TLR4. *Nutritional neuroscience*:1-14. doi:10.1080/1028415X.2018.1501533
35. **Sergi D**, Williams LM (2020) Potential relationship between dietary long-chain saturated fatty acids and hypothalamic dysfunction in obesity. *Nutr Rev* 78 (4):261-277. doi:10.1093/nutrit/nuz056
36. Williams JL, Everett JM, D'Cunha NM, **Sergi D**, Georgousopoulou EN, Keegan RJ, McKune AJ, Mellor DD, Anstice N, Naumovski N (2019) The Effects of Green Tea Amino Acid L-Theanine Consumption on the Ability to Manage Stress and Anxiety Levels: a Systematic Review. *Plant Foods Hum Nutr*. doi:10.1007/s11130-019-00771-5
37. Williams J, McKune AJ, Georgousopoulou EN, Kellett J, D'Cunha NM, **Sergi D**, Mellor D, Naumovski N (2020) The Effect of L-Theanine Incorporated in a Functional Food

Product (Mango Sorbet) on Physiological Responses in Healthy Males: A Pilot Randomised Controlled Trial. *Foods* 9 (3). doi:10.3390/foods9030371

38. McLean FH, Campbell FM, **Sergi D**, Grant C, Morris AC, Hay EA, MacKenzie A, Mayer CD, Langston RF, Williams LM (2019) Early and reversible changes to the hippocampal proteome in mice on a high-fat diet. *Nutr Metab (Lond)* 16:57. doi:10.1186/s12986-019-0387-y
39. **Sergi D**, Naumovski N, Heilbronn LK, Abeywardena M, O'Callaghan N, Lionetti L, Luscombe-Marsh N (2019) Mitochondrial (Dys)function and Insulin Resistance: From Pathophysiological Molecular Mechanisms to the Impact of Diet. *Frontiers in Physiology* 10 (532). doi:10.3389/fphys.2019.00532
40. Munialo CD, Naumovski N, **Sergi D**, Stewart D, Mellor DD (2019) Critical evaluation of the extrapolation of data relative to antioxidant function from the laboratory and their implications on food production and human health: a review. *International Journal of Food Science & Technology* 54 (5):1448-1459
41. McLean FH, Campbell FM, Langston RF, **Sergi D**, Resch C, Grant C, Morris AC, Mayer CD, Williams LM (2019) A high-fat diet induces rapid changes in the mouse hypothalamic proteome. *Nutrition & Metabolism* 16 (1):26. doi:10.1186/s12986-019-0352-9
42. Williams J, **Sergi D**, McKune AJ, Georgousopoulou EN, Mellor DD, Naumovski N (2019) The beneficial health effects of green tea amino acid l-theanine in animal models: Promises and prospects for human trials. *Phytotherapy research : PTR*. doi:10.1002/ptr.6277
43. **Sergi D**, Renaud J, Simola N, Martinoli MG (2019) Diabetes, a Contemporary Risk for Parkinson's Disease: Epidemiological and Cellular Evidences. *Front Aging Neurosci* 11:302. doi:10.3389/fnagi.2019.00302
44. Speer H, D'Cunha NM, Botek M, McKune AJ, **Sergi D**, Georgousopoulou E, Mellor DD, Naumovski N (2019) The Effects of Dietary Polyphenols on Circulating Cardiovascular Disease Biomarkers and Iron Status: A Systematic Review. *Nutr Metab Insights* 12:1178638819882739. doi:10.1177/1178638819882739
45. **Sergi D**, Campbell FM, Grant C, Morris AC, Bachmair E-M, Koch C, McLean FH, Muller A, Hoggard N, de Roos B, Porteiro B, Boekschoten MV, McGillicuddy FC, Kahn D, Nicol P, Benzler J, Mayer C-D, Drew JE, Roche HM, Muller M, Nogueiras R, Dieguez C, Tups A, Williams LM (2018) SerpinA3N is a novel hypothalamic gene upregulated by a high-fat diet and leptin in mice. *Genes and Nutrition* 13. doi:10.1186/s12263-018-0619-1
46. Tups A, Benzler J, **Sergi D**, Ladyman SR, Williams LM (2017) Central Regulation of Glucose Homeostasis. *Comprehensive Physiology* 7 (2):741-764. doi:10.1002/cphy.c160015 [doi]
47. McGillicuddy FC, Reynolds CM, Finucane O, Coleman E, Harford KA, Grant C, **Sergi D**, Williams LM, Mills KH, Roche HM (2013) Long-term exposure to a high-fat diet results in the development of glucose intolerance and insulin resistance in interleukin-1 receptor I-deficient mice. *American journal of physiology Endocrinology and metabolism* 305 (7):E834-844. doi:10.1152/ajpendo.00297.2013 [doi]

#: shared first authorship.