

DAVIDE MASI

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Medical Doctor. Specialized in Endocrinology, Andrology, and Metabolic Diseases.
Clinical researcher in Endocrinology: main fields of expertise include: obesity, nutrition, type 2 diabetes and gut microbiome.
Currently, PhD student in Endocrinological Sciences at "Sapienza University", Rome, IT.

WORK EXPERIENCE

PhD in Endocrinological Sciences, 11/2023 – ongoing

Sapienza University of Rome – Umberto I University Hospital, Rome (Italy)

PhD Project: “OBESIOMICS: Observing the Biological Essence of Obesity through Metabolic and Immune Connections” Tutors: Prof. Lucio Gnessi and Prof. Daniele Gianfrilli

Coordinator of the Obesity Research Group of the Italian Association of Medical Diabetologists (AMD) 11/2026 – ongoing

Visiting Research Scientist, 09/2022 - 10/2023

Nutrition Et Obésités : Approches Systémiques, Nutriomics, K. Clément Lab, Sorbonne Université –Paris, France

- I conducted extensive research into the relationship between gut microbiota and metabolic diseases, aiming to increase our understanding of this important field and provide valuable contributions.
- I contributed to numerous research papers, reports, reviews, and summaries, focusing on topics such as obesity and type 2 diabetes.
- In addition to my research work, I also have extensive experience in a variety of laboratory techniques. These include DNA and RNA extraction from cells and tissues, retrotranscription, qPCR to assess gene expression of interest, fecal metagenomic analysis (DNA sequencing), isolation of circulating monocytes and ELISA assays.
- Subinvestigator of *GUTERRING pilot study* (Correcting GUT microbiota by combined supplementation of fibERs and bIotiN to improve microbiome and optimize bariatric surgery outcomes) (N.2022- A022251-42);
- Subinvestigator of *Je-Col-Mime Trial* (Jejunal and Colonic Microbiota in Metabolic Diseases)(clinicaltrials.gov/study/NCT05186389)

Resident in Endocrinology and Metabolic Diseases, 11/2019 - Current

Polyclinic Umberto I - Basic and Clinical Research on Obesity and Metabolic Diseases

- Outpatients' clinic and Day Hospital (approximately 350 new patients per year);
- Diagnosis and screening of obesity-related complications and comorbidities;
- Research at High specialized Centre for the Cure of Obesity (CASCO) -Polyclinic "Umberto I", Rome – Supervisor: Prof Lucio Gnessi;
- Led projects and analyzed data to identify opportunities for obesity management

Early Career Researcher, 11/2019 - Current

Sapienza University of Rome

Dietary manipulation & medical management of bariatric patients.

- Study coordinator of the “Phase 3, randomized, double-blind, parallel-group, event-driven, cardiovascular safety study with BI 456906 administered subcutaneously compared with placebo in participants with overweight or obesity with established cardiovascular disease (CVD) or chronic kidney disease, and/or at least two weight-related complications or risk factors for CVD”
- Sub-investigator of the following projects:
 - Effect of nutritional ketosis on humoral and cell-mediated response following COVID19 mRNA vaccine;
 - Effect of a low-calorie ketogenic diet on liver outcomes and microbiome in subjects with compensated cirrhosis.

Visiting Research Fellow, 07/2019 - 09/2019

Royal Hospital for Children; Supervisor: Prof F. Ahmed and Prof. G. Shaikh

Endocrine services and clinics

- I collaborated with Andrologists and Pediatric Consultants to advance research and gain a deeper understanding of male infertility and rare endocrine conditions;
- I participated in research rounds, multi-disciplinary meetings, and Journal Clubs

EDUCATION

Ph.D.: Endocrinological Sciences, Expected in 11/2026

Sapienza University – Rome; Supervisors: Prof. Daniele Gianfrilli and Prof. Lucio Gnessi

Residency Program: Endocrinology and Metabolic Diseases, 11/2023

Sapienza University – Rome

Final grade: 70/70 w/h.

Thesis of Specialization: "*Analisi metagenomica del microbiota duodeno-digiunale nel contesto dell'obesità severa: uno studio pilota*" – Supervisors: Prof. K. Clément and Prof. C. Lubrano

School of Medicine: Doctor in Medicine and Surgery, 03/2019

Università Cattolica Del Sacro Cuore (UCSC) – Rome

Final grade: 110/110 w/h.

Thesis of Master's Degree: "*Differential diagnosis in ACTH- dependent Cushing's Syndrome : new biochemical diagnostic tools*" – Supervisor: Prof. A. Pontecorvi and Prof. S. Corsello

Advanced Studies Diploma: Business Fundamentals - English Proficiency Course, 07/2018

Lamaro Pozzani University College, Lamaro - Rome

Founded by the 'Federazione Nazionale dei Cavalieri del Lavoro', contributes to the education of young people able to reach relevant positions in today's society.

High School Diploma: 06/2012

Scientific High School– Polo Liceale Majorana -

Final grade: 100/100 w/h – Grade average: 9,93/10

GRANTS

- Poster Award Winner, 26th European Congress of Endocrinology ECE 2024, Stockholm | *Unraveling the Role of the Upper Small Intestine Microbiome in Metabolic Diseases: insight on new potential therapeutic interventions*
- “SIO Giovani 2023” Award 2023 | Best thesis on obesity
- Ermenegildo Zegna Founder's Scholarship 2022 | Funding for research abroad
- Short-Term Fellowship Grant 2022 | European Society of Endocrinology
- Bioscientifica Trust Grant 2022 | Funding for research abroad
- Toniolo Founder's Scholarship 2012
- Bando di Ateneo Sapienza University 2025, *Evaluating the Direct Effects of Semaglutide on Steatosis, Inflammation, and Fibrotic Signaling in a Microfluidic Liver-on-a-Chip Model*. Protocol number: AR125199C3A2A891
- Bando di Ateneo Sapienza University 2023, *Assessing the impact of two dietary regimens on sexual and andrological profile, brown adipose tissue activation, body composition and sleep quality in men with hypogonadism and obesity: the ANDROLOGY open-label, randomized, single-center, pilot study*. Protocol Number: RM123188E2878E4C
- Bando di Ateneo Sapienza University 2022, *Tissue-based immunofluorescence antibody testing in the evaluation of autoimmune obesity in patients with low leptin levels: a pilot study*. Protocol Number: AR1221816773FFC6
- Bando di Ateneo Sapienza University 2022, *A translational pilot study evaluating the acute effects of different macronutrient compositions on circulating Sirtuin-1, adiposity indices, incretin responses and brown adipose tissue activation: a possible role for ketone bodies*. Protocol Number: RM122181681F2246
- Bando di Ateneo Sapienza University 2021, *Effects of different eating and sleeping pattern, dietary regimens, physical activity levels and bariatric surgery on syst, mic and tissue inflammatory response, sars-cov2 antibody titer and body composition in obesity: a cross over controlled randomized study*. Protocol Number: RM12117A61EAEC9A
- Bando di Ateneo Sapienza University 2020, *Sirtuin1 e Sclerostina: il nesso fisiopatologico tra obesità e osteoporosi. Studio osservazionale, cross-sectional*. Protocol Number: RP120172B9E980D7

Citations in Scopus: 663,; H-index Scopus: 12, Publications in Scopus: 38

Most relevant selected publications:

- **Masi, D.**, Watanabe, M., & Clément, K. (2026). Gut microbiome and obesity care: Bridging dietary, surgical, and pharmacological interventions. *Cell Reports Medicine* (**first author**)
- Tuccinardi, D., **Masi, D.**, Watanabe, M., Zanghi Buffi, V., De Domenico, F., Berti, S., ... & Pagotto, U. (2025). Precision obesity medicine: A phenotype-guided framework for pharmacologic therapy across the lifespan. *Journal of Endocrinological Investigation*, 1-38.
- Ernesti, I [...], **Masi, D.**, et al. (2025). "Impact of a very low-calorie ketogenic diet on metabolic and microbiota outcomes in post-bariatric patients and bariatric-Naïve individuals: A comparative pilot study." *Diabetes, Obesity and Metabolism* (**corresponding author**)
- Steinbach, E., Belda, E., Alili, R., Adriouch, [...] **Masi, D.**, et al. (2024). Comparative analysis of the duodenojejunal microbiome with the oral and fecal microbiomes reveals its stronger association with obesity and nutrition. *Gut Microbes*, 16(1), 2405547.
- **Masi, D.**, et al. (2023). Upper small intestine microbiome in obesity and related metabolic disorders: A new field of investigation. *Metabolism*, 155712. (**co-first author**)
- **Masi, D.**, et al. (2023). Obesity-Associated Hepatic Steatosis, Somatotrophic Axis Impairment, and Ferritin Levels Are Strong Predictors of COVID-19 Severity. *Viruses* 15.2 (2023): 488. (**first author**)
- **Masi, D.**, et al. (2023). Application of a Machine Learning Technology in the Definition of Metabolically Healthy and Unhealthy Status: A Retrospective Study of 2567 Subjects Suffering from Obesity with or without Metabolic Syndrome. *Nutrients*, 14(2), 373 (**first author**)
- **Masi, D.**, et al. (2023). Uncovering Predictors of Lipid Goal Attainment in Type 2 Diabetes Outpatients Using Logic Learning Machine: Insights from the AMD Annals and AMD Artificial Intelligence Study Group." *Journal of Clinical Medicine* 12.12 (2023): 4095. (**corresponding author**)

Other publications in peer-reviewed scientific journals:

- Spizzichini, M. L., **Masi, D.**, Glaser, K., Tuccinardi, D., Gianfrilli, D., Gnessi, L., & Watanabe, M. (2026). Self-reported versus measured anthropometry yields clinically relevant BMI underestimation. *Obesity and Endocrinology*, wjag001.
- Curreli, M., Recalchi, S., **Masi, D.**, Rossetti, R., Ernesti, I., Camaiani, E., ... & Lubrano, C. (2025). The Impact of a Very-Low-Calorie Ketogenic Diet on Monocyte Subsets of Patients with Obesity: A Pilot Study. *Nutrients*, 17(2), 312. (**corresponding author**)
- Tuccinardi, D., Watanabe, M., **Masi, D.**, et al. (2024). Rethinking weight loss treatments as cardiovascular medicine in obesity, a comprehensive review. *European Journal of Preventive Cardiology*, 31(10), 1260-1273.
- **Masi, D.**, Le Roy, T., Adriouch, S., Clément, K. (2024). Nourishing the gut: the impact of diet on host–gut microbiota interaction. *Current Opinion in Clinical Nutrition & Metabolic Care*, 10- 1097. (**first author**)
- Risi, R., [...], **Masi, D.**, et al. (2023). Postbariatric Surgery Hypoglycemia: nutritional, pharmacological and surgical perspectives. *Diabetes/Metabolism Research and Reviews* Nicoletta, M., Zilich, R., **Masi, D.**, et al. (2024). Overcoming Therapeutic Inertia in Type 2 Diabetes: Exploring Machine Learning-Based Scenario Simulation for Improving Short-Term Glycemic Control. *Machine Learning and Knowledge Extraction*, 6(1), 420-434. (**corresponding author**)
- **Masi, D.**, et al. (2023). Obésité et risque cardiovasculaire: le rôle de la chirurgie bariatrique dans la modulation du microbiote intestinal. *ScienceDirect* (online version) (**first author**)
- **Masi, D.**, Tozzi, R., Watanabe, M., (2023). Genome Editing and Obesity, book chapter in

Advances in Experimental Medicine and Biology, 1396, pp. 179–190

- Tozzi, R., Cipriani, F., **Masi, D.** et al. Ketone Bodies and SIRT1, Synergic Epigenetic Regulators for Metabolic Health: A Narrative Review. *Nutrients*, 14(15), 3145.
- **Masi, D.**, et al. The Influence of Ketone Bodies on Circadian Processes Regarding Appetite, Sleep and Hormone Release: A Systematic Review of the Literature. *Nutrients*, 14(7), 1410. **(first author)**
- Gangitano, E., Barbaro, G., Susi, M., Rossetti, R., Spoltore, M. E., **Masi, D.** et al. (2022). Growth Hormone Secretory Capacity Is Associated with Cardiac Morphology and Function in Overweight and Obese Patients: A Controlled, Cross-Sectional Study. *Cells*, 11(15), 2420.
- Tozzi, R., **Masi, D.**, et al. (2022). Circulating SIRT1 and Sclerostin Correlates with Bone Status in Young Women with Different Degrees of Adiposity. *Nutrients*, 14(5), 983.
- Risi, R., [...], **Masi, D.**, et al. (2022). Sex difference in the safety and efficacy of bariatric procedures: a systematic review and meta-analysis. *Surgery for Obesity and Related Diseases*, 18(7), 983-996.
- Watanabe, M., [...], **Masi, D.**, et al. (2022). Central obesity, smoking habit, and hypertension are associated with lower antibody titres in response to COVID-19 mRNA vaccine. *Diabetes/metabolism research and reviews*, 38(1), e3465.
- Watanabe, M., Balena, A., **Masi, D.**, et al. (2022). Rapid Weight Loss, Central Obesity Improvement, and Blood Glucose Reduction Are Associated with a Stronger Adaptive Immune Response Following COVID-19 mRNA Vaccine. *Vaccines*, 10(1), 79.
- **Masi D.**, et al., Letter to the Editor: "Our Response to COVID-19 as Endocrinologists and Diabetologists". *J Clin Endocrinol Metab.* 2020 Jul 1;105(7):dga229. **(first author)**
- Lubrano, C., **Masi, D.**, et al. (2020). Is Growth Hormone Insufficiency the Missing Link Between Obesity, Male Gender, Age, and COVID-19 Severity?. *Obesity*, 28(11), 2038-2039. Watanabe, M., Risi, R., **Masi, D.**, et al. (2020). Current evidence to propose different food supplements for weight loss: A comprehensive review. *Nutrients*, 12(9), 2873.
- Lubrano, C., Risi, R., **Masi, D.**, Gnessi, L., & Colao, A. (2020). Is obesity the missing link between COVID-19 severity and air pollution?. *Environmental Pollution*, 266, 115327.
- Risi, R., Masieri, S., Poggiogalle, E., Watanabe, M., Caputi, A., **Masi, D.**, et al. (2020). Nickel Sensitivity Is Associated with GH-IGF1 Axis Impairment ~~and Pituitary Abnormalities on MRI in~~ Overweight and Obese Subjects. *International Journal of Molecular Sciences*, 21(24), 9733.
- **Masi, D.**, et al. (2021). Very low-Calorie Ketogenic diets to Treat patients with obesity and chronic kidney disease. *Journal of Renal Nutrition*, 31(4), 340-341. **(first author)**

AUTHORIZATION

I authorize the processing of the personal data contained in my curriculum vitae in accordance with art. 13 of Legislative Decree 196/2003 and art. 13 of EU Regulation 2016/679 on the protection of individuals with regard to the processing of personal data.

Rome, January 31, 2026

