

Antonio Brunetti

Full Professor of Endocrinology

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EDUCATION:

Medical Doctor (MD),
Specialist in Endocrinology and Metabolic Diseases, University of Catania, Italy;
PhD in Endocrinology and Metabolic Sciences, University of Naples "Federico II", Italy.

CURRENT ROLES:

Director UOC Endocrinology and Metabolic Diseases, AOU "R. Dulbecco", Catanzaro, Italy.

Coordinator PhD Program in Clinical and Experimental Biomedical Sciences, University "Magna Græcia" of Catanzaro, Italy

RESEARCH ACTIVITIES:

Head of the Specialized Medicine Laboratory, Division of Endocrinology and Metabolism.

TEACHING ACTIVITIES:

Endocrinology courses for the Degree in Medicine and Surgery, Health Professions, and other academic programs.

ACADEMIC AND PROFESSIONAL TITLES:

- 1985: Visiting Fellow, University of Pisa
- 1986-1987: Research Associate, Mount Zion Medical Center, UCSF, San Francisco (California), USA
- 1987: Visiting Researcher, Stanford Univ. School of Medicine, Stanford, USA.
- 1988: Visiting Professor, Joslin Diabetes Center, Harvard University, Boston, USA.
- 1991: Assistant Professor, Mount Zion Medical Center, UCSF, San Francisco, USA.
- 1993: Associate professor, UCSF, San Francisco, USA.
- 1993: Researcher of Endocrinology, UMG Catanzaro, Italy
- 2007-2010: Associate Professor of Endocrinology, UMG Catanzaro, Italy
- Currently: Full Professor of Endocrinology, UMG Catanzaro, Italy

MAIN RESEARCH AREAS:

- Pathophysiology of insulin action
- Genetics and pharmacogenetics of type 2 diabetes and insulin resistance syndromes
- Genetics and epigenetics of glucose metabolism
- Insulin resistance and neurodegeneration
- Gestational diabetes
- Obesity, inflammation, and cancer
- Animal models of type 2 diabetes
- Biomarkers for type 2 diabetes and precision medicine

For over 20 years, Prof. Brunetti has focused on genetic biomarkers and the susceptibility to insulin resistance in patients with abdominal obesity, metabolic syndrome, and type 2 diabetes. Utilizing advanced biotechnologies, genetically modified animal models, and clinical studies, he discovered that a deficiency in the HMGA1 nuclear protein is responsible for a newly classified form of diabetes known as "HMGA1opathy", which affects 10% of diabetics. His findings, have been published in prestigious journals, including *The Journal of Clinical Investigation*, *Nature Medicine*, *Nature Communications*, and *JAMA*, and led to the patenting of an early diagnostic method for insulin resistance and type 2 diabetes (W02010/146613). Recently, Prof. Brunetti's research has expanded to gestational diabetes, where he is developing early predictors for both gestational diabetes and postpartum glucose intolerance. He has also developed novel compounds to counteract insulin resistance associated with abdominal obesity, including an innovative, internationally patented experimental agonist of the PPAR γ receptor (PCT/IB2024/052710).