

Andrea Frontini

Biographical sketch

ADDRESS: Department of Life and Environmental Science-DISVA at Polytechnic University of Marche (UNIVPM) Breccie Bianche 60131, Ancona.

GOOGLE SCHOLAR PAGE:

https://scholar.google.it/citations?hl=it&user=oA1QTHkAAAAJ&view_op=list_works

RESEARCH AREA: Molecular mechanisms involved in the control of energy balance. This includes central mechanisms of action in the hypothalamus but also peripheral signaling pathways in adipose tissue, muscle and liver. I am interested in the biology of adipose tissue in physiological as well as in pathological conditions such as obesity and diabetes.

The results of my research work have been published in 60 publications in journal indexed in PUB MED. H-index 37 (Scopus), 40 (Google Scholar); citations: 7000 (Scopus).

The most important works were published in Nature Review Drug Discovery (2016), Cell (2014); Cell Metabolism (2012; 2010), Journal of Clinical Investigation (2011).

EDITORIAL ACTIVITY: Ad Hoc Reviewer for: Nature Communication; Journal of Lipid research; Journal of Clinical Endocrinology and Metabolism; Plos One.

MEMBERSHIPS

Italian Society of Anatomy and Histology
Italian Society for the Study of Obesity

Current position

Starting October 2020, Associate Professor of Human Anatomy (BIO/16) at the Department of Life and Environmental Science, Università Politecnica delle Marche (Univpm), Italy.

Educational background

2003-2006 Polytechnic University of Marche (UNIVPM), Ph.D.
2000-2003 University of Windsor (ON, Canada) M.Sc.
1993-1998 University of Ancona, Ancona, Italy, B.Sc.

Previous employments

2015-2020 Associate Professor of Human Anatomy - School of Medicine, University of Pavia, Italy.
2010-2015 Assistant Professor at the Università Politecnica delle Marche, School of Medicine, Italy
2006-2010 Post Doc at the Università Politecnica delle Marche, Italy.

Teaching Experience:

I have been teaching Functional Anatomy to the Students enrolled in Obstetrics at the Università Politecnica delle Marche from 2013 to 2015.

I have than moved to Morphology and Human Anatomy for students enrolled in Med School (Italian course) and Histology and Microscopic Anatomy for the students enrolled in the English course. Both courses were provided by the University of Pavia, Italy (2010-2015). I currently teach Human Anatomy to Biological Science's students and Physiology of Nutrition and Advance biological imaging for the Master degrees (DISVA-UNIVPM).

Publications:

<https://www.ncbi.nlm.nih.gov/myncbi/andrea.frontini.1/bibliography/public/>

Chapters in books

- M.A. Shiffman et al. (Eds.), *Stem Cells in Aesthetic Procedures*, © Springer-Verlag Berlin Heidelberg 2014. *The Adipose Organ: Morphological Perspectives of Adipose Tissues*. Arianna Smorlesi, Andrea Frontini and Saverio Cinti
- *Leptin: Biosynthesis, Functions and Clinical Significance* © Nova Science Publishers, Inc., 2014. *Leptin: From energy balance to inflammatory process in obesity*. Corgosinho, F.C., Frontini, A, Giordano, A, Cinti, S, Dâmaso, A.R
- Yihai Cao Ed. *Angiogenesis in Adipose Tissue*, © Springer Science-Business Media New York 2013. *Origin of Adipocyte Precursors from Adipose Vascular Endothelium*. Andrea Frontini, Silvia Corvera, and Saverio Cinti
- *Adipose organ nerves revealed by immunohistochemistry (2008)*. Giordano A, Frontini A and Cinti S. *Methods in Molecular Biology, Humana Press* 456:83-95

Research projects

- Participant in FP7-DIABAT (Recruitment and activation of brown adipose tissue to curb obesity in humans). Project ID: 278373
- PI on a grant by the company Ethicon endo-surgery (Johnson&Johnson Med Tech) to evaluate the potential application of electrical transdermal stimulation on human supraclavicular brown adipose tissue.
- PI on internal funding by Università Politecnica delle Marche (2020-2025)

Acts of Congress

- Invited: 22° Congresso Nazionale "Nutrition for Human and Planetary Care"- 10-11 marzo 2023, Ancona.
- Invited speaker: 28° Congresso Nazionale SID (Società Italiana di Diabetologia); 2-5 dicembre 2020 Edizione Virtuale. SESSIONE Stile di Vita: Combattere la sedentarietà. Titolo della Relazione: Esercizio fisico e plasticità dell'adipocita.
- Invited speaker: TARGETING OBESITY. Seminari aperti al pubblico ed organizzati all'interno del Master di Dietetica e Nutrizione Clinica offerto dall'Università di Pavia. Pavia 25 Maggio 2018, Aula Magna c.o Strada Nuova, Sede Centrale Unipv. Titolo relazione: Convertible visceral fat as therapeutic target to curb obesity.
- Invited speaker: IL CORPO CHE SOFFRE. Il disagio del Corpo nei disturbi del comportamento alimentare. Bologna, MAST, 25-26 novembre 2016. Fondazione Gruber in associazione con ANSISA. Titolo relazione: Interazioni tra Organo Adiposo e Microbiota Intestinale.
- Invited speaker: 16th Congress of Aesthetic and Anti-Aging Medicine, Warsaw (Poland) 7-9 October 2016. Titolo relazione: Adipose Tissue: New insights in the morphology and function of this multi-depot endocrine organ.
- Invited Speaker: VII Congresso Nazionale Società Italiana dell'Obesità, 29 Settembre - 1° Ottobre, Rome, Italy. Title: Uomini e Topi: Studio comparativo sullo sviluppo e sulla distribuzione del tessuto adiposo bruno.
- Invited Speaker: "Symposium on Brown adipose tissue and eutheria" Wenner-Gren Center, Stockholm (Sweden) May 25-28, 2016. Title: Ultrastructure of human brown adipocytes.
- Poster presentation: Keystone Symposia Beige and brown fat: Basic Biology and Novel Therapeutics. April 17-22, 2015 Snowbird, Utah, USA. Title of the poster: From fetus to adult human: developmental cues to unravel different shades of fat". Andrea Frontini, Loris Sartini, Monica Banita, Catalina Pisoschi, Marina Fusaru, Cristina Zingaretti and Saverio Cinti.
- Invited speaker for: BHF Centre of Research Excellence Workshop and 40th UK Adipose Tissue Discussion Group. Title: Browning of the Adipose Organ in Humans. 12- 13 December 2013. THE QUEEN'S MEDICAL RESEARCH INSTITUTE, Edinburgh, Scotland.
- Attender: 11th Stock Conference - Brown Adipose Tissue - a human anti-obesity tissue? November 2-4, 2012; Montreal, Canada.
- BENZON SYMPOSIUM- Adipose Tissue in Health and Disease - Copenhagen, August 27-30, 2012. Poster: Origin of white and brown adipose cells from vascular endothelium Andrea Frontini, Khanh-Van Tran, Olga Gealekman, Maria Cristina Zingaretti, Silvia Corvera and Saverio Cinti.

- ECO2011 18th European Congress on Obesity; Istanbul, Turkey, 25-28 May 2011.
Poster presentation: WAT to BAT transdifferentiation in omental fat of patients with pheochromocytoma.
A. Frontini, A. Vitali, J. Perugini, M.C. Zingaretti, C. Romiti, M. Guerrieri and S. Cinti
- ECO2009 17th European Congress on Obesity; Amsterdam, The Netherlands, 6-9 May 2009.
Poster presentation: The presence of UCP1 demonstrates that metabolically active adipose tissue in the neck of adult humans truly represents brown adipose tissue.
A. Frontini, B. Cannon, J. Nedergaard, and S. Cinti.
- SINS 2007 Società Nazionale di Neuroscienze. Verona (Italia) 27-30 Settembre 2007.
Poster presentation: Leptin action in the hypothalamus of postnatal developing mice.
Frontini A, Cinti S and Giordano A