Università degli Studi di Roma "Tor Vergata"

CURRICULUM DIDATTICO-SCIENTIFICO DELLA PROF.SSA ROSSELLA MENGHINI

DATI PERSONALI
Nome e Cognome: Rossella Menghini
Luogo e data di nascita: Roma, 18-03-1972

***ATTUALE POSIZIONE*:** Professore Seconda Fascia
Dipartimento: Medicina dei Sistemi
Indirizzo: Via Montpellier, 1
Numero studio: 0672596612
E-mail: menghini@med.uniroma2.it
Orario ricevimento
Settore scientifico-disciplinare: Biochimica Clinica (BIO/12)

ATTIVITA' DIDATTICA - SCIENTIFICA

Titoli accademici e di studio:
Laurea in Chimica
Dottorato di Ricerca in "Fisiopatologia sperimentale"

Formazione post-laurea presso istituzioni italiane ed estere ed incarichi professionali (didattici e di ricerca):
1997: Borsa di studio post-laurea presso il Dipartimento di Biologia Cellulare e dello Sviluppo dell'Università degli Studi "La Sapienza" di Roma.
1998-1999: Borsa di studio post-laurea presso il Dipartimento di Microbiologia Cellulare e Immunologia del Vienna Biozentrum
1999-2003: Dottorato di Ricerca in "Fisiopatologia sperimentale" presso il Dipartimento di Medicina Interna dell'Università "Tor Vergata" di Roma
2003-2007: Assegno di ricerca presso il Dipartimento di Medicina Interna dell'Università "Tor Vergata" di Roma
Dal 2006: Docente di "Biotecnologie delle Fermentazioni" nel corso di laurea specialistica in Biotecnologie Mediche presso l'Università degli Studi "Tor Vergata" di Roma
Dal 2009 Ricercatore settore scientifico disciplinare BIO/12 presso il Dipartimento di Medicina dei Sistemi dell'Università di Roma Tor Vergata
Dal 2017 Professore di Seconda Fascia settore scientifico disciplinare BIO/12 presso il Dipartimento di Medicina dei Sistemi dell'Università di Roma Tor Vergata

Finanziamenti ricevuti per attività di ricerca:
- Titolare del Fondo per il finanziamento delle attività base di ricerca (FFABR)" Principal Investigator **EFSD/Boehringer IngelheimResearch Programmein Microvascular Complications of Diabetes** NTIMP3peptide is a new therapy for diabetic nephropathy: in vivo preclinical studies 01-11-2017 to 30-10-2019
- Principal Investigator (Local Unit) **FONDAZIONE ROMA 2013** LL37 abridges skin inflammation to atherosclerotic progression: a comorbidity pathogenesis hypothesis. 01-10-2015 to 30-04-2018.
- Principal Investigator (Local Unit) **UNCOVERING EXCELLENCE 2014** Role of Tregs in the crosstalk between visceral adipose tissue and colon lamina propria during obesity and concomitant chronic colitis. 09-03-2015 to 09-09-2016.
- Principal Investigator (Local Unit) **GR-HEALTH-2010-2309531** Perivascular adipose tissue miRNAs: links between insulin resistance in type 2 diabetes and vascular disease. 30-11-2012 to 30-11-2015.

- Responsabile di **Fondi di Ricerca di Ateneo**, anno 2009: Aterosclerosi ed invecchiamento: ruolo dei MicroRNA e SirT1 nella disfunzione endoteliale.

Premi ricevuti per attività di ricerca:

2012: Accademia Medica e i Giovani Ricercatori. Lettura dal titolo "MicroRNA e senescenza cellulare tra metabolismo e rischio cardiovascolare".

2005: "Parma Diabete" dalla Società Italiana di Diabetologia (SID) "Role of the transcription factor GATA2 in inflammation related to obesity".

1999: Borsa di studio Fondazione Telethon.

1997: Premio di studio per la partecipazione ad un corso avanzato della "Federation of Biochemical Society" tenutosi all'**"**Instituto de Investigationes Biomedicas" di Madrid, lab. del Prof. C. Gancedo.

1997: Borsa di studio della società Biopolo, Milano.

Attività di ricerca: 15 pubblicazioni selezionate

1) Casagrande V,…, **Menghini R**. "Hepatocyte specific TIMP3 expression prevents diet dependent fatty liver disease and hepatocellular carcinoma". *Sci. Rep.* 2017;7(1):6747.
2) Mavilio M,…, **Menghini R**, Federici M. "A Role for Timp3 in Microbiota-Driven Hepatic Steatosis and Metabolic Dysfunction". *Cell Rep*. 2016;16(3):731-43.
3) **Menghini R**, et al. "FoxO1 regulates asymmetric dimethylarginine via downregulation of dimethylaminohydrolase 1 in human endothelial cells and subjects with atherosclerosis". *Atherosclerosis*. 2015;242(1):230-5.
4) **Menghini R**, et al. "Toll-like receptor 4 mediates endothelial cell activation through NF-κB but is not associated with endothelial dysfunction in patients with rheumatoid arthritis". *PLoS One*. 2014;9(6):e99053.
5) **Menghini R**, et al. MiR-216a: a link between endothelial dysfunction and autophagy. Cell Death Dis. 2014;5:e1029.
6) Marino A, **Menghini R**, et al. ITCH Deficiency Protects From Diet-Induced Obesity. Diabetes. 2014;63:550-61.
7) **Menghini R**, et al. TIMP3 overexpression in macrophages protects from insulin resistance, adipose inflammation, and nonalcoholic fatty liver disease in mice. Diabetes 2012;61:454-62.
8) Casagrande V, **Menghini R**, et al. Overexpression of tissue inhibitor of metalloproteinase 3 in macrophages reduces atherosclerosis in low-density lipoprotein receptor knockout mice. Arterioscler Thromb Vasc Biol. 2012;32:74-81.
9) Cardellini M, **Menghini R**, et al. Decreased IRS2 and Timp3 expression in monocyte from offspring of Type 2 Diabetes Mellitus patients are correlated to insulin resistance and increased intima-media thickness. Diabetes 2011;60:3265-70.
10) **Menghini R**, et al. "MicroRNA 217 modulates endothelial cell senescence via silent information regulator 1". Circulation. 2009;120:1524-32.
11) Cardellini M, **Menghini R** et al. "TIMP3 is reduced in atherosclerotic plaques from subjects with type 2 diabetes and increased by SirT1" Diabetes. 2009;58:2396-401.
12) **Menghini R**, et al. Tissue inhibitor of metalloproteinase 3 deficiency causes hepatic steatosis and adipose tissue inflammation in mice. Gastroenterology. 2009;136:663-72.e4.
13) Serino M*, **Menghini R***, et al. "Mice heterozygous for tumor necrosis factor-alpha converting enzyme are protected from obesity-induced insulin resistance and diabetes". *Diabetes*. 2007;56(10):2541-6.
14) Federici M, …, **Menghini R**, et al. Timp3 deficiency in insulin receptor-haploinsufficient mice promotes diabetes and vascular inflammation via increased TNF-alpha. J Clin Invest. 2005;115:3494-3505.
15) **Menghini R**, et al. Phosphorylation of GATA2 by Akt increases adipose tissue differentiation and reduces adipose tissue-related inflammation: a novel pathway linking obesity to atherosclerosis. Circulation. 2005;111:1946-53.

Università degli Studi di Roma "Tor Vergata"

ACADEMIC AND SCIENTIFIC CURRICULUM OF PROF. ROSSELLA MENGHINI

PERSONAL DATA
Name and Surname: Rossella Menghini
Place and date of birth: Roma, 18-03-1972

***CURRENT POSITION*:**
Professore Seconda Fascia
Department: Medicine of Systems
Address: Via Montpellier, 1
Phone number: 0672596612
E-mail: menghini@med.uniroma2.it
Consulting hours
Italian Ministry of Education Academic-Scientific sector: BIO/12

SCIENTIFIC AND DIDACTIC ACTIVITY

Education

1996 Bachelor Degree in Chemistry, obtained from the University of Rome "La Sapienza". Degree thesis entitled "Pyruvate metabolism in the yeast Kluyveromices Lactis" Relator Prof. Laura Frontali.
1997: Board certification in Chemical Science University of Rome "La Sapienza"
2003 Ph.D. Degree in Experimental Physiopathology obtained from the University of Rome Tor Vergata Degree thesis entitled: "Impaired Akt insulin dependent activation in adipose tissue and endothelium: modulation of GATA2 transcription factor". Relator Prof. Renato Lauro.

Positions

1996-1997: Research fellow in the Department of Cell and Developmental Biology. University of Rome "La Sapienza"
1998-1999: Visiting Scientist in the laboratory of Prof. T. Decker at the Dep. of Cellular Microbiology and Immunology of the Vienna Biocentrum.
1999-2003: PhD Student in the Molecular Medicine laboratory of the Internal Medicine department at the University of Rome "Tor Vergata".
2003 to date: Instructor in Molecular Medicine, Department of Internal Medicine, University of Rome "Tor Vergata".
2003-2007: Post doc at the Molecular Medicine lab of the Internal Medicine Dep at the University of Rome "Tor Vergata".
2009-2017: Assistant Professor at the Department of Systems Medicine, University of Rome Tor Vergata.
2017 to date: Associate Professor at the Department of Systems Medicine, University of Rome Tor Vergata.

Grants and Honors

PI "Fondo per il finanziamento delle attività base di ricerca (FFABR)"
PI **EFSD/Boehringer IngelheimResearch Programmein Microvascular Complications of Diabetes** NTIMP3peptide is a new therapy for diabetic nephropathy: in vivo preclinical studies 01-11-2017 to 30-10-2019
PI (Local Unit) **FONDAZIONE ROMA 2013** LL37 abridges skin inflammation to atherosclerotic progression: a comorbidity pathogenesis hypothesis. 01-10-2015 to 30-04-2018.

PI (Local Unit) **UNCOVERING EXCELLENCE 2014** Role of Tregs in the crosstalk between visceral adipose tissue and colon lamina propria during obesity and concomitant chronic colitis. 09-03-2015 to 09-09-2016.
PI (Local Unit) **GR-HEALTH-2010-2309531** Perivascular adipose tissue miRNAs: links between insulin resistance in type 2 diabetes and vascular disease. 30-11-2012 to 30-11-2015.

"**Fondi di Ricerca di Ateneo** 2009"

1997: Fellowship from Biopolo, Milan.
1997: Fellowship from Federation of Biochemical Society for an advanced course at the "Instituto de Investigationes Biomedicas" of Madrid.
1999: Fellowship from Telethon Foundation
2005 "Parma Diabetes Award" from the Italian Society of Diabetologia (SID) "Role of the transcription factor GATA2 in inflammation related to obesity."
2006-2012: Fellowship from Telethon Foundation

15 Selected peer-reviewed publications

1) Casagrande V,…, **Menghini R**. "Hepatocyte specific TIMP3 expression prevents diet dependent fatty liver disease and hepatocellular carcinoma". *Sci. Rep.* 2017;7(1):6747.
2) Mavilio M,…, **Menghini R**, Federici M. "A Role for Timp3 in Microbiota-Driven Hepatic Steatosis and Metabolic Dysfunction". *Cell Rep*. 2016;16(3):731-43.
3) **Menghini R**, et al. "FoxO1 regulates asymmetric dimethylarginine via downregulation of dimethylaminohydrolase 1 in human endothelial cells and subjects with atherosclerosis". *Atherosclerosis*. 2015;242(1):230-5.
4) **Menghini R**, et al. "Toll-like receptor 4 mediates endothelial cell activation through NF-κB but is not associated with endothelial dysfunction in patients with rheumatoid arthritis". *PLoS One*. 2014;9(6):e99053.
5) **Menghini R**, et al. MiR-216a: a link between endothelial dysfunction and autophagy. Cell Death Dis. 2014;5:e1029.
6) Marino A, **Menghini R**, et al. ITCH Deficiency Protects From Diet-Induced Obesity. Diabetes. 2014;63:550-61.
7) **Menghini R**, et al. TIMP3 overexpression in macrophages protects from insulin resistance, adipose inflammation, and nonalcoholic fatty liver disease in mice. Diabetes 2012;61:454-62.
8) Casagrande V, **Menghini R**, et al. Overexpression of tissue inhibitor of metalloproteinase 3 in macrophages reduces atherosclerosis in low-density lipoprotein receptor knockout mice. Arterioscler Thromb Vasc Biol. 2012;32:74-81.
9) Cardellini M, **Menghini R**, et al. Decreased IRS2 and Timp3 expression in monocyte from offspring of Type 2 Diabetes Mellitus patients are correlated to insulin resistance and increased intima-media thickness. Diabetes 2011;60:3265-70.
10) **Menghini R**, et al. "MicroRNA 217 modulates endothelial cell senescence via silent information regulator 1". Circulation. 2009;120:1524-32.
11) Cardellini M, **Menghini R** et al. "TIMP3 is reduced in atherosclerotic plaques from subjects with type 2 diabetes and increased by SirT1" Diabetes. 2009;58:2396-401.
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13) Serino M*, **Menghini R***,et al. "Mice heterozygous for tumor necrosis factor-alpha converting enzyme are protected from obesity-induced insulin resistance and diabetes". *Diabetes*. 2007;56(10):2541-6.
14) Federici M, …, **Menghini R**, et al. Timp3 deficiency in insulin receptor-haploinsufficient mice promotes diabetes and vascular inflammation via increased TNF-alpha. J Clin Invest. 2005;115:3494-3505.
15) **Menghini R**, et al. Phosphorylation of GATA2 by Akt increases adipose tissue differentiation and reduces adipose tissue-related inflammation: a novel pathway linking obesity to atherosclerosis. Circulation. 2005;111:1946-53.