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Curriculum Vitae

Attività Scientifica

Marco Arese Si è dedicato allo studio di vari mediatori della comunicazione intercellulare che coinvolgono le cellule vascolari, lavorando per tre anni anche presso il Department of Cell Biology, New York University, New York, USA.

Negli ultimi anni, presso la Divisione di Angiogenesi Molecolare dell'Istituto per la Ricerca e la Cura del Cancro, si è occupato principalmente dell'espressione e funzione di due proteine di origine nervosa nel sistema vascolare nonché di alcuni progetti collaborativi all'interno della divisione. E' co-autore di trentacinque pubblicazioni su riviste internazionali e di un capitolo di libro.

Pubblicazioni su riviste con *Impact Factor*

- 1: Gualandris A, Noghero A, Geuna M, Arese M, Valdembri D, Serini G, Bussolino F. Microenvironment drives the endothelial or neural fate of differentiating embryonic stem cells coexpressing neuropilin-1 and Flk-1. *FASEB J.* 2008 Aug 29.
- 2: Serini G, Napione L, Arese M, Bussolino F. Besides adhesion: new perspectives of integrin functions in angiogenesis. *Cardiovasc Res.* 2008 May 1;78(2):213-22
- 3: Rissone A, Monopoli M, Beltrame M, Bussolino F, Cotelli F, **Arese M.** *Comparative genome analysis of the neurexin gene family in Danio rerio: insights into their functions and evolution.* *Mol Biol Evol.* 2007 Jan;24(1):236-52.
- 4: Mitola S, Brenchio B, Piccinini M, Tertoolen L, Zammataro L, Breier G, Rinaudo MT, den Hertog J, **Arese M,** Bussolino F. *Type I collagen limits VEGFR-2 signaling by a SHP2 protein-tyrosine phosphatase-dependent mechanism.* *Circ Res.* 2006 Jan 6;98(1):45-54.
- 5: Strasly M, Doronzo G, Capello P, Valdembri D, **Arese M,** Mitola S, et al. (2004). *CCL16 activates an angiogenic program in vascular endothelial cells.* *Blood;*103(1):40-9.
- 6: Audero, E., Cascone, I., Maniero, F., Napione, L., **Arese, M.,** Lanfrancone, L., and Bussolino, F. (2004). *Adaptor ShcA protein binds tyrosine kinase Tie2 receptor and*

regulates migration and sprouting but not survival of endothelial cells. J Biol Chem 279, 13224-13233.

- 7 Del Sorbo L, **Arese M**, Giraudo E, Tizzani M, Biancone L, Bussolino F, et al. (2001) *Tat-induced platelet-activating factor synthesis contributes to the angiogenic effect of HIV-1 Tat.* Eur J Immunol;31(2):376-83
- 8 **Arese M**, Ferrandi C, Primo L, Camussi G, Bussolino F. (2001) *HIV-1 Tat protein stimulates in vivo vascular permeability and lymphomononuclear cell recruitment.* J Immunol;166(2):1380-8.
- 9 Gualandris A, Annes JP, **Arese M**, Noguera I, Jurukovski V, Rifkin DB. (2000) *The latent transforming growth factor-beta-binding protein-1 promotes in vitro differentiation of embryonic stem cells into endothelium.* Mol Biol Cell;11(12):4295-308.
- 10 Gualandris A, **Arese M.**, Shen B, Rifkin DB., *Modulation of cell growth and transformation by doxycycline-regulated FGF-2 expression in NIH-3T3 cells.* J Cell Physiol., 1999. **181**(2): p. 273-84.
11. Callea L, **Arese M.**, Orlandini A, Bargnani C, Priori A, Bussolino F., *Platelet activating factor is elevated in cerebral spinal fluid and plasma of patients with relapsing-remitting multiple sclerosis.* J Neuroimmunol., 1999. **94**(1-2): p. 212-21.
12. **Arese M**, Chen Y., Florkiewicz RZ, Gualandris A, Shen B, Rifkin DB., *Nuclear activities of basic fibroblast growth factor: potentiation of low-serum growth mediated by natural or chimeric nuclear localization signals.* Mol Biol Cell., 1999. **10**(5): p. 1429-44.
13. **Arese M.**, Callea L., Ferrandi C., Bussolino F. *Level of Platelet Activating Factor in cerebral spinal fluid and plasma of patients with relapsing-remitting multiple sclerosis,* in *Advances in the Immunopathogenesis of Multiple Sclerosis.*, S.-V. Italia, Editor. 1999. p. 49-57.
- 14 Shen B, **Arese M.**, Gualandris A, Rifkin DB., *Intracellular association of FGF-2 with the ribosomal protein L6/TAXREB107.* Biochem Biophys Res Commun., 1998. **252**(2): p. 524-8.
15. Montrucchio G, Lupia E, de Martino A, Battaglia E, **Arese M**, Tizzani A, Bussolino F, Camussi G. *Nitric Oxide mediates angiogenesis induced in vivo by Platelet activating factor and tumor necrosis factor but not by basic fibroblast growth factor.* Am. J. Pathol., 1997. **151**: p. 557-563.
16. Giraudo E., **Arese M.**, Toniatti C., Strasly M., Primo L., Mantovani A., Ciliberto G., Bussolino F. *IL-6 is an in vitro and in vivo autocrine growth factor for middle T antigen-transformed endothelial cells.* J. Immunol., 1996. **157**: p. 2618-2623.
17. Ghigo, D. Geromin, C. Franchino, R. Todde, C. Priotto, Costamagna C., **Arese M.**, Garbarino G., Pescarmona G.P., Bosia A.. *Correlation between nitric oxide synthase activity and reduced glutathione level in human and murine endothelial cells.* Amino Acids, 1996. **10**: p. 277-281.
18. Bussolino F., Soldi R., Primo L., **Arese M.**, Camussi G.. *Biochimica in Italia, 1996. 14-25., Autocrine and paracrine effects of Platelet Activating Factor produced by endothelial cells.* Biochimica in Italia, 1996. **4**: p. 14-25.
19. Dong QG, Graziani A., Garlanda C., Wainstok De Calmanovici R., **Arese M**, Soldi R., Vecchi A., Mantovani A. , Bussolino F. *Anti-tumor activity of cytokines against opportunistic vascular tumors in mice.* Int. J. Cancer, 1996. **65**: p. 700-708.

20. Camussi G, Montrucchio G, Lupia E, **Arese M**, Bussolino F *Platelet-activating factor and angiogenesis*. Adv. Exp. Med. Biol., 1996. **416**: p. 231-234.
21. Beatrice F., Giusti U., Bisciari T., Cammarota R., Navone R., Palestro G., Ragona R., Sartoris A., **Arese M**, Bussolino F., Valente G. *Microvessel count is predictive of patients' survival in laryngeal squamous-cell carcinoma* . Int. J. Cancer, 1996. **69**(5): p. 426-427.
22. **Arese M**, Cristol J.P., Tetta C., Bussolino F., Wratten ML., Strasly M., Canaud B., Mion C., *Removal of constitutive and inducible nitric oxide synthase -active compounds in a modified hemodialifiltration with on-line production of substitution fluid: the contribution of convection and diffusion*. Int J Artif Organs, 1996. **19**(12): p. 704-711.
23. Silvagno F., Follenzi A., **Arese M** , Prat M., Giraudo E., Gaudino G., Camussi G., Comoglio P.M., Bussolino F. *In vivo activation of met tyrosine kinase by heterodimeric hepatocyte growth factor molecule promotes angiogenesis*. Arter.Thromb. Vasc. Biol., 1995. **15**: p. 1857-1865.
24. Jaranowska A., Bussolino F., Sogos V., **Arese M**, Lauro G., Gremo F. *Platelet-activating factor production by human fetal microglia. Effect of lipopolysaccharides and tumor necrosis factor- α* . Mol. Chem. Neuropathol., 1995. **24**: p. 95-106.
25. Ghigo D., **Arese M**, Todde R., Vecchi A., Silvagno F., Costamagna C., Dong QG, Alessio M., Heller R., Soldi R., Trucco F., Garbarino G., Pescarmona GP, Mantovani A., Bussolino F., Bosia A. *Middle T antigen-transformed endothelial cells exhibit an increased activity of nitric oxide synthase*. J.Exp.Med., 1995. **181**: p. 9-19.
26. Camussi G., Montrucchio G., Lupia E. , De Martino A., Perona L., **Arese M**, Vercellone A., Toniolo A., Bussolino F. *Platelet-activating factor directly stimulates in vitro migration of endothelial cells and promotes in vivo angiogenesis by a heparin-dependent mechanism*. J. Immunol., 1995. **154**: p. 6492-6501.
27. Bussolino F., **Arese M**, Primo L., Resi L., Tanganelli P, Weber G. *La rigenerazione endoteliale (The endothelial regeneration)*. Giornale della Arteriosclerosi, 1995. **20**: p. 3-12.
24. Bussolino F, **Arese M**, Montrucchio G, Barra L, Primo L, Benelli R, Sanavio F, Aglietta M, Ghigo D, Rola-Pleszczynski MR, et al. *Platelet activating factor produced in vitro by Kaposi's sarcoma cells induces and sustains in vivo angiogenesis*. J. Clin. Invest., 1995. **96**: p. 940-52.
28. Bussolino F, Soldi R, **Arese M**, Jaranowska A, Sogos V, Gremo F. *Multiple roles of platelet-activating factor in the nervous system*. Neurochem. Int., 1995. **26**: p. 425-433.
29. Arese M, Strasly M, Ruva C, Costamagna C, Ghigo D, MacAllister R, Verzetti G, Tetta C, Bosia A, Bussolino F. *Regulation of nitric oxide synthesis in uraemia*. Nephrol., Dialysis, Transplant., 1995. **10**(8): p. 1386-1397.
30. Amore A, Bonaudo R, Ghigo D, **Arese M**, Costamagna C, Cirina P, Gianoglio B, Perugini L, Coppo R. *Enhanced production of Nitric Oxide (NO) by blood-dialysis membrane interaction*. J Am Soc Nephrol., 1995. **6**(4): p. 1278-83.
31. Sciacca F.L., Sturzl M., Bussolino F., Sironi M., Brandstetter H., Zietz C., Zhou D., Matteucci C., Peri G., Sozzani S., Benelli R., **Arese M**, Albini A., Colotta F. , Mantovani A.. *Expression of adhesion molecules, platelet-activating factor, and chemokines by Kaposi's sarcoma cells*. J.Immunol., 1994. **153**: p. 4816-4825.
32. Bussolino F, **Arese M**, Silvestro L, Soldi R, Benfenati E, Sanavio F, Aglietta M, Bosia A, Camussi G. *Involvement of a serine protease in the synthesis of platelet-activating factor by endothelial cells stimulated by tumor necrosis factor- α or interleukin-1 α* . Eur. J. Immunol., 1994. **24**: p. 3131-3139.
33. Bussolino F, Silvagno F, Garbarino G, Costamagna C, Sanavio F, **Arese M**, Soldi R, Aglietta M, Pescarmona G, Camussi G, et al. *Human endothelial cells are targets for platelet-activating factor (PAF). Activation of alpha and beta protein kinase C isozymes in endothelial cells stimulated by PAF*. J. Biol. Chem., 1994. **269**: p. 2877-2886.

35. Bussolino F, Bocchietto E, Silvagno F, Soldi R, **Arese M**, Mantovani A. *Actions of molecules which regulate hemopoiesis on endothelial cells: memoirs of common ancestors?* Pathology, Research & Practice, 1994. **190**(9-10): p. 834-839.

Capitoli di libro

1. Bussolino F, **Arese M**, Audero E, Giraudo E, Marchiò S, Mitola S, Primo L, Serini G. *Biological aspects of Tumor Angiogenesis*. In: Editor CaHC, editor. Cancer Modeling and Simulation,; 2003. p. 1-22