

CURRICULUM VITAE RAFFAELE STRIPPOLI

Name: Raffaele Strippoli
Place and date of birth: Rome, April 10, 1972
Citizenship: Italian
Social status: Married, two daughters
Laboratory address: Department of Cellular Biotechnology and Hematology,
Sapienza University Viale Regina Elena 324, 00161 Rome,
Italy
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RESEARCH INTERESTS

Study of signalling events underlying epithelial to mesenchymal transition (EMT) and its reversal (MET) during chronic inflammation. Mechanisms of fibrosis induction in the peritoneal membrane.

Study of signalling pathways elicited by TLRs and inflammatory cytokines. Role of MAP kinases and NF- κ B in the regulation of the inflammatory cascade.

EDUCATION

February 2007 PhD in Immunology, University of Rome "La Sapienza". Title of the thesis: "Role of Pyk2 in the regulation of CXCL8-induced human Neutrophil chemotaxis". Supervisor: Prof. A. Santoni, Department of Experimental Medicine and Pathology, Rome University "La Sapienza"

November 2002 Residency in Laboratory Medicine (Specializzazione in Patologia Clinica), School of Medicine, University of Rome "La Sapienza", with full marks and honours. Residency thesis: "Role of β 1 integrins in the regulation of NK cells functions". Supervisor: Prof. A. Santoni, Department of Experimental Medicine and Pathology, Rome University "La Sapienza"

July 1997 M.D. Degree with full marks and honours, School of Medicine, Rome University "La Sapienza"

FELLOWSHIP AND AWARDS

December 2014-December 2020 National Scientific Qualification Exams 06/N1 II level

September 2013-present Assistant professor (RTD), Department of Cellular Biotechnology and Hematology (BIO13), University of Rome "La Sapienza", Rome, Italy

September 2012-August 2013 Postdoctoral investigator, Centro Nacional de Investigaciones Cardiovasculares (CNIC) Madrid, Spain

September 2009-August 2012 Recipient of a three year research fellowship, IRCCS Ospedale Pediatrico Bambino Gesù, Rome, Italy

July 2008-June 2011 Recipient of a three year 'post-residency' research fellowship 'Rio Hortega' Instituto de Salud Carlos III (Madrid, Spain)

July 2005-June 2006 Recipient of one year research fellowship from FIRC (fondazione italiana per la ricerca sul cancro)

February-June 2002 Fulbright Fellowship Visiting Scholar at Immunology Laboratory directed by Prof. E.C. Butcher, Department of Pathology, Stanford University, Palo Alto, USA

July 1997-June 2005

Fellow in the laboratory of Immunology directed by Prof. A. Santoni,
Department of Experimental Medicine and Pathology, Rome University "La Sapienza"

Summary of Scientific Achievements

Product type	Number	Data Base	Year
Papers [international]	26	Scopus	
Papers [national]	1	Scopus	
Books [translating]	1	Translation to Italian of KARP Cell And Molecular Biology, 7 th edition, chapter II The Chemical Basis of Life.	April 2014
Patent	1	Uso de inhibidores de TAK1 en la prevención y tratamiento del fracaso de la membrana peritoneal. P201031439 ES1997.8 September 28th 2010	September 2010
Patent	1	Inhibidores de la MEK 1/2 para el tratamiento de la fibrosis peritoneal PCT/ES2009/070348	August 2009

Total Citations	732 (Scopus)
Average Citations per Product	26.14 (Scopus)
Hirsch (H) index	14 (Scopus)
Papers with first-last authorship	11

TEACHING ACTIVITY

2014-2015: Tecniche di laboratorio biomedico	BASI DEL FUNZIONAMENTO CELLULARE	3 cfu
Medicina e Chirurgia	BIOLOGIA E GENETICA	3 cfu
2015-2016: Tecniche di laboratorio biomedico	BASI DEL FUNZIONAMENTO CELLULARE	3 cfu
Medicina e Chirurgia	BIOLOGIA E GENETICA	3 cfu
Infermieristica	BASI MOLECOLARI E CELLULARI DELLA VITA	2 cfu
2015-2016: Medicina e Chirurgia	BIOLOGIA E GENETICA	3 cfu
Infermieristica	BASI MOLECOLARI E CELLULARI DELLA VITA	2 cfu

From 2014-2015: College of Teachers, Pasteur Institute Sapienza PhD in Life Sciences, Sapienza University

February 24th, 2016: External member of the Committee for Doctoral Thesis: Angela Rynne Vidal, Universidad Autonoma de Madrid Facultad de Ciencia.

July 10th 2013: External member of the Committee for Doctoral Thesis: Maria Luisa Perez Lozano, Universidad Autonoma de Madrid, Departamiento de Bioquímica, Facultad de Medicina

Research Projects

14/03/2014 13/03/2017 Stromal stiffness in Tumor Progression Ref: 674/C/2013
Funding Agency: Fundació la Marató TV3 PI: DEL POZO

01/01/2012 - 31/12/2014 Caveolin-1 as a Membrane Trafficking, Biomechanical and Signaling regulator in Physiology and Disease" Ref: SAF 2011-25047
Funding Agency: Spanish Ministry of Economy and Competitvity PI: DEL POZO

01/01/2013-30/12/2015 Caveolin-1 as a Membrane Trafficking, Biomechanical and Signaling regulator in Physiology and Disease" Ref: SAF 2011-25047
Funding Agency: Spanish Ministry of Economy and Competitvity PI: DEL POZO

01/01/2013-30/12/2015 FIGHT HLH FP7 GRANT Funding agency: European Union IRCCS Ospedale Pediatrico Bambino Gesù PI: Aricò De Benedetti

01/12/2009-30/12/2014 Mechanism of protein secretion and compartment organization CDS2009-00016 CONSOLIDER CALL 2009 Funding Agency: Spanish Ministry of Economy and Competitvity PI: DEL POZO

01/01/2011-30/12/2011 Validazione in vivo ed in vitro di nuovi approcci terapeutici volti ad inibire l'effetto pro-infiammatorio di IL-6 IRCCS Ospedale Pediatrico Bambino Gesù/Ministero della Salute PI: De Benedetti

01/01/2009-01/01/2011 Integrinas, caveolina-1 y Rho/Rac GTPasa en endocitosis, migración y proliferación celular SAF2008-02100 Funding agency: Fundaciòn CNIC CARLOS III PI: DEL POZO

01/12/2005-01/12/2008 Plasma membrane heterogeneity in anchorage-independent growth and cell Migration SAF2005-00493 Funding Agency: Ministerio de Educación y Ciencia PI: DEL POZO

01/01/2005-30/12/2007 Structural determinants in the acquisition and maintenance of cell polarity Licio Collavin; Carlo Tacchetti; Ruggero Pardi; Lucio Nitsch; Fabrizio Mainiero Ministero della Salute Italia PRIN 2005

01/01/2004-30/12/2005 Interactions between innate and adaptive immunity: from biology to clinic Gianfranco Delprete; Andrea Velardi; Lorenzo Moretta; Marino Paroli; Enza Piccolella; Luigi Daniele Notarangelo; Alessandro Moretta; Angela Santoni Ministero della Salute PRIN 2004

ACCEPTED PUBLICATIONS

1) Santangelo L., Battistelli C., Montaldo C., Citarella F., **Strippoli R.** and Cicchini C.. "Functional roles and therapeutic applications of exosomes in hepatocellular carcinoma" by Accepted, *BioMed Research International* (IF:2.134)

2) De Santis Puzzonina M, Cozzolino AM, Grassi G, Bisceglia F, **Strippoli R.** Guarguaglini G, Citarella F, Sacchetti B, Tripodi M, Marchetti A, Amicone L. TGFbeta Induces Binucleation/Polyploidization in Hepatocytes through a Src-Dependent Cytokinesis Failure. *PLoS One.* 2016 Nov 28;11(11):e0167158. doi: 10.1371/journal.pone.0167158. (IF:3.057)

3) T.Oranges, A. Insalaco, A. Diociaiuti, C. Carnevale, **R. Strippoli**, G. Zambruno, P. Tomà, M. El Hachem "Severe osteoarticular involvement in isotretinoin-triggered acne fulminans: two cases successfully treated with anakinra" Accepted *Journal of European Academy of Dermatology*(2016) IF: 3.029

4)**Strippoli R.** Echarri A, del Pozo MA Cell-Based Assays to Study ERK Pathway/Caveolin1 Interactions *Methods in Molecular Biology* (IF:1.29)

5)**Strippoli R.** Moreno-Vicente R., Battistelli C., Cicchini C., Noce V, Amicone L, Marchetti A, Miguel del Pozo MA, and Tripodi M. *Molecular Mechanisms Underlying Peritoneal EMT and Fibrosis, Stem Cells International* Volume 2016 (2016) (IF: 2.813)

6)Cifaldi L, Prencipe G, Caiello I, Bracaglia C, Locatelli F, De Benedetti F, **Strippoli R** Inhibition of Natural Killer Cell Cytotoxicity by Interleukin-6: Implications for the Pathogenesis of Macrophage Activation Syndrome. Accepted, *Arthritis* 2015 Nov;67(11):3037-46 (IF: 7.76)

7)**Strippoli R.** Loureiro J, Moreno V, Benedicto I, Pérez Lozano ML, Barreiro O, Pellinen T, Minguet S, Foronda M, Osteso MT, Calvo E, Vázquez J, López Cabrera M, del Pozo MA. Caveolin-1 deficiency induces a MEK-ERK1/2-Snail-1-dependent epithelial-mesenchymal transition and fibrosis during peritoneal dialysis. *EMBO Mol Med.* 2014 Dec 30;7(1):102-23 (IF:8.24)

- 8)**Caiello I, Minnone G, Holzinger D, Vogl T, Prencipe G, Manzo A, De Benedetti F, **Strippoli R** IL-6 amplifies TLR mediated cytokine and chemokine production: implications for the pathogenesis of rheumatic inflammatory diseases PLoS ONE, 2014 Oct 1;9(10):e107886. (IF:3.23)
- 9)** Prencipe G, Minnone G, **Strippoli R**, De Pasquale L, Stefania Petrini S, Caiello I, Manni L, De Benedetti L and Bracci-Laudiero L Nerve Growth Factor through TrkA down-regulates inflammatory response in human monocytes after Toll-like receptor stimulation. Journal of Immunology Apr 1;192(7):3345-54 (IF: 4.92)
- 10)** Petrini S, Bertini E, De Benedetti F, Frank C, Coccetti M, Minnone G, Aiello C, Cutarelli A, Ambrosini A, Lanciotti AM, Brignone S, **Strippoli R**, Bracci-Laudiero L Monocytes and macrophages as biomarkers for the diagnosis of Megalencephalic leukoencephalopathy with subcortical cysts. Molecular and Cellular Neuroscience 2013 Sep;56:307-21 (IF:3.73)
- 11)** **Strippoli R.**, Caiello I, De Benedetti F How to reach the threshold of immune activation: understanding the pathogenesis of macrophage activation syndrome from animal models. The Journal of Rheumatology, 2013 Jun;40(6):761-7. (IF: 3.17)
- 12)** **Strippoli R**, Benedicto I, Perez Lozano ML, Pellinen T, Sandoval P, Lopez-Cabrera M and del Pozo MA Inhibition of transforming growth factor-activated kinase 1 (TAK1) blocks and reverses epithelial to mesenchymal transition of mesothelial cells. PLoS ONE 01/2012; 7(2):e31492 (IF:3.23)
- 13)** **Strippoli R**, Carvello F, Scianaro R, De Pasquale L, Vivarelli M, Petrini S, Bracci-Laudiero L, and De Benedetti F. (2011) Chronic exposure to Interleukin-6 amplifies the response to Toll-like receptor ligands: implication on the pathogenesis of macrophage activation syndrome. Arthritis Rheumatism 2012 (IF: 7.76)
- 14)** **Strippoli R.**, Benedicto I, Foronda M., Perez-Lozano M.L., Sánchez-Perales S., López Cabrera M., and del Pozo M.Á. (2010) p38 maintains E-cadherin expression by modulating TAK1-NF-kappaB during epithelial to mesenchymal transition. Journal of Cell Science 123, 4321-4331. (IF: 5.4)
- 15)** **Strippoli, R.**, Foronda, M., López-Cabrera, M., and del Pozo, M.A. (2009) Targeting the ERK/NF- κ B/Snail1 pathway as a potential therapeutic strategy to prevent the failure of peritoneal dialysis. Nature Reviews Cardiology (CNIC edition) 6:43-48
- 16)** **Strippoli R**, Benedicto I, Pérez Lozano ML, Cerezo A, López-Cabrera M, Del Pozo MA. (2008) Epithelial to mesenchymal transition of peritoneal mesothelial cells is regulated by an ERK/NF-kappaB/Snail1 pathway. Dis Model Mech. 1, 264-274. (IF: 5.0)
- 17)** Toschi, E., Bacigalupo, I., **Strippoli, R.**, Cereseto, A., Falchi, M., Sgadari, C., Barillari, G., Nappi, F., Mainiero, F. and Ensoli, B. (2006) HIV-1 Tat controls endothelial cell cycle progression through the activation of the Ras/ERK MAPK signaling pathway. Molecular Biology of the Cell, 17, 1985-1994. (IF: 4.47)
- 18)** Colombara, M., Antonini, V., Riviera, A.P., Mainiero, F., **Strippoli, R.**, Poffe, O., Brutti, N., Tridente, G., and Ramarli, D. (2005) Misregulated MAPK activity leads to IL-6 and Rantes over-expression in epithelial cells of myasthenic thymus. Journal of Immunology. 175. 7021-7028. (IF: 4.92)
- 19)** Casilli, F., Bianchini, A., Gloaguen, I., Biordi, L., Alesse, E., Festuccia, C., Cavalieri, B., **Strippoli, R.**, Cervellera, M.N., Di Bitondo, R., Ferretti, E., Mainiero, F., Bizzarri, C., Colotta F., and Bertini, R. (2005) Inhibition of Interleukin-8 (CXCL8/IL-8) responses by Repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2. Biochemical Pharmacology. 69, 385-394. (IF: 5.01)
- 20)** Bertini, R., Allegretti, M., Bizzarri, C., Moriconi, A., Locati, M., Zampella, G., Cervellera, M.N., Di Cioccio, V., Cesta, M.C., Galliera, E., Martinez, F.O., Di Bitondo, R., Troiani, G., Sabbatini, V., Anacardio, R., Cutrin, J.C., Cavalieri, B., Mainiero, F., **Strippoli, R.**, Villa, P., Di Girolamo, M., Martin, F., Gentile, M., Santoni, A., Corda, D., Ghezzi, P., Poli, G., Mantovani, A., Colotta, F. (2004) A new class of non-competitive allosteric inhibitors of the inflammatory chemokine receptors CXCR1 and CXCR2: prevention of reperfusion injury. Proc. Natl. Acad. Sci. USA. 101, 11791-11796 (IF: 9.67)
- 21)** Di Cioccio, V., **Strippoli, R.**, Bizzarri, C., Troiani, G., Cervellera, M.N., Gloaguen, I., Colagrande, A., Cattozzo, E.M., Pagliei, S., Santoni, A., Colotta, F., Mainiero, F., and Bertini, R. (2004) Key role of Proline-Rich Tyrosine Kinase 2 in Interleukin 8 (CXCL8/IL-8)-mediated human neutrophil chemotaxis. Immunology. 111, 407-415 (IF: 3.8)
- 22)** Mainiero, F., Colombara, M., Antonini V., **Strippoli, R.**, Merola, M., Poffe, O., Tridente, G., and Ramarli, D. (2003) p38 MAPK is a critical regulator of the constitutive and the beta4 integrin-regulated expression of IL-6 in human normal thymic epithelial cells. European Journal of Immunology. 33, 3038-3048 (IF: 4.03)
- 23)** Gismondi, A., Jacobelli, J., **Strippoli, R.**, Mainiero, F., Soriani, A., Piccoli, M., Frati, L., Santoni, A. (2003) Pyk-2 integrates chemokine and integrin receptor signalling to control NK transendothelial migration. Journal of Immunology. 170, 3065-3073 (IF: 4.92)

24) D'Auria FD, Tecca M, **Strippoli R**, Simonetti N. In vitro activity of propyl gallate-azole drug combination against fluconazole- and itraconazole-resistant *Candida albicans* strains. Lett Appl Microbiol. 2001 Apr;32(4):220-3. (IF: 1.66)

25) Mainiero F, Gismondi A, **Strippoli R**, Jacobelli J, Soriani A, Morrone S, Santoni A. Integrin-mediated regulation of cytokine and chemokine production by human natural killer cells. Eur Cytokine Network. 2000 Sep;11(3):493-4 (IF: 1.96)

26) Mainiero, F., Gismondi, A., **Strippoli, R.**, Soriani A, Jacobelli, J., Santoni, A. Integrine e cellule Natural Killer (NK) [Integrins and Natural Killer (NK) cells] EOS Rivista di Immunologia ed Immunofarmacologia Volume 20, Issue 3, 2000, Pages 71-76

27) Mainiero, F., Soriani, A., **Strippoli, R.**, Jacobelli, J., Gismondi, A., Piccoli, M., Frati, L. and Santoni, A. (2000) RAC1/P38 MAPK signaling pathway controls beta1 integrin-induced interleukin-8 production in human natural killer cells. Immunity. 12, 7-16 (IF: 21.56)

Activity as a peer reviewer

Peer Review activity for Journal of Biological Chemistry, Cell Death and Differentiation, Journal of Cell Science, PloS One, Translational Research, Journal of Rheumatology, Pharmaceutical Biology, Laboratory Investigation, Cellular Physiology and Biochemistry; American Journal of Nephrology, Pharmacological Reports, FEBS journal, Cell Physiol Biochem, BBA - Molecular Basis of Disease, Frontiers in Pharmacology, Kidney & Blood Pressure Research

Leading Guest Editor for the journal Mediators of inflammation (2016-2017)

Membership of scientific societies

From 2000: SIICA Società Italiana di immunologia, Immunologia Clinica e Allergologia

From 2007: TEMTIA the EMT international Association

From 2008: PreS pediatric Rheumatology European Society

From 2013: ABCD Associazione di Biologia Cellulare e del Differenziamento