

CURRICULUM VITAE

Maria Patrizia Stoppelli,

Dirigente di Ricerca, Consiglio Nazionale delle Ricerche (CNR),
Istituto di Genetica e Biofisica "A. Buzzati Traverso" (IGB-ABT),
mpatrizia.stoppelli@igb.cnr.it
mariapatrizia.stoppelli@unicamillus.org

FORMAZIONE

1978-1981: Laurea degree in Biological Sciences, 110/110 summa cum laude at University Federico II, Naples. Experimental Thesis at the IGB, CNR: "Restriction patterns of *V. carteri* DNA and identification of rDNA fragments".

POSIZIONI IN ISTITUZIONI ESTERE

01/08/1981-01/10/1981: Summer student at Lab of Biochemistry, National Cancer Institute, National Institute of Health, Bethesda, USA.

01/09/1984-20/12/1984: Borsista AIRC, Laboratory of Chemoprevention, National Cancer Institute, NIH, Bethesda, USA.

01/03/1985-30/05/1985: Ricercatore ospite, Laboratory of Cell Biology, National Cancer Institute, National Institute of Health, Bethesda, USA.

01/01/1986-30/06/1987: MIT Post-doctoral Fellow, Dept of Applied Biol Sciences, Massachusetts Institute of Technology (MIT), Cambridge, MA, USA.

POSIZIONI DI RICERCA IN ITALIA

30/10/1981-30/11/1982: Consulente Lepetit-Dow Chemical, IIGB, Napoli.

01/12/1982-29/12/1988: Assegno di formazione CNR, IIGB.

30/12/1988-21/1/1999: Ricercatore CNR, IIGB.

22/1/1999-30/12/2001: Primo Ricercatore CNR, IGB.

31/12/2001-oggi: Dirigente di Ricerca CNR, IGB.

ATTIVITA' DIDATTICA IN ITALIA

1/11/2004-03/2006: Professore di Genetica umana (BIO18), presso la Facoltà di Biotecnologie, Dip di Produzione animale, Università della Basilicata Potenza.

16/06/2014-16/06/2023: ASN I FASCIA, 05/E1 Biochimica generale e Biochimica clinica.

2023-2024: Professore di Biologia Applicata (BIO13), Corso di Laurea in Fisioterapia, UniCamillus-Saint Camillus International University of Health Sciences, Roma.

COMMISSIONI UNIVERSITARIE

2003-2005: Membro di Commissione del Dottorato in Molecular Imaging, Dip di Scienze Biomorfologiche and funzionali Univ Federico II, Napoli (XIX, XX Ciclo).

28-3-2008: Opponent per la tesi di dottorato: "Mechanisms in uPAR signalling and uPARAP in collagen remodelling", Candidato: Thore Hillig, Univ di Copenhagen, Danimarca.

2-3-2011: Membro di Commissione dei Dottorati SEMM (European School of Molecular Medicine), Univ di Milano, presso IFOM, Milano.

12-2016: Controrelatore della tesi di dottorato: "Deciphering the role of SerpinB2 in cancer invasion and metastasis" candidato: Nathaniel Lachlan Harris, School of Biological Sciences, University of Wollongong, Au.

COMMISSIONI CNR

2010-2011: Membro di commissione, concorso n.364.86 per Dirigente di Ricerca in Scienze Biologiche.

2016-2023: Membro del Consiglio di Istituto IGB (CdI).

2019-2023: Membro del Consiglio scientifico (CSD) del Dipartimento di Scienze Biomediche del CNR.

SOCIETA' SCIENTIFICHE

2015-oggi: Membro della SIBBM (Società Italiana di Biochimica e Biologia Molecolare).

2017-oggi: Membro della Società Internazionale di Trombosi ed Emostasi (ISTH)

2016-2022: Membro del Consiglio della Intl Society for Fibrinolysis and Proteolysis (ISFP).

2022-2024: Chair della ISFP.

FINANZIAMENTI

Networks europei

1988-1991: **European Union, European Concerted Action**: "Mechanisms of Cancer Invasion and metastasis" (**Responsable**; *Contract n. CHRX-CT94-0427 del 18/8/1988*). Partners: Univ' di Milano, Finsen Laboratory DK, Centre Medicale Univ CMUG.DM, Universite' de Paris, val de Marne, TNO Netherlands.

1993-1995: **European Union Network Human Capital and Mobility**: "Urokinase/urokinase receptor interaction: structural analysis, physiological and pathological functions and therapeutical applications (*contract n. CHRX-CT930-0427*).

1/1/2004-31/12/2007: **European Union Framework Programme FP6, Integrated Project**:

"Extracellular Proteases and the Cancer Degradome: Innovative Diagnostic Markers, Therapeutic Targets and Tumour Imaging Agents" (**Head of Unit n. 26**; *contract n.LSHC-CT-2003-503297*, signed by the U East Anglia, Norwich UK (prof D. Edwards) and the EC RD.

01/05/2009-30/9/2012: **European Science Foundation Eurocore Network**: "Membrane Architecture and Dynamics-Molecular Determinants of Sterol-Sphingolipid-Protein Interactions in Living Cells and Organisms" (**Head of Unit n.6**; *letter 7/4/2009 from CNR International relationships #Pos 117.14.1 and delibere CdA 25/2/2009, 11/3/2009 n. 47/2009*).

Partners: S. Eaton, Max Planck Institute for Mol Cell Biology & Genetics Dresden. H.J. Knölker, Technical University Dresden. T. Kuzchalia, Max Planck Institute of Mol Cell Biology & Genetics Dresden. H. Riezman, Dept of Biochemistry, Univ Geneva. D. Corda, IBP-CNR, Naples, Italy.

Recenti finanziamenti nazionali

2015-7: Progetti CNR INTEROMICS "Role of Fra-1 and uPAR pro-invasive factors in the control of breast cancer cell secretome and crosstalk with human fibroblasts"

2014-2015 PO FESR 2007-2013 - Regione Campania: "Network of Biotechnologies in the Campania region", Interventions in strategic scientific areas Biomedicals and Molecular Diagnostics.

2018-2019: PO FESR 2014-2020 Regione Campania: "Development of innovative approaches to neoplastic therapies resistant to treatments or SATIN".

CONVEgni INTERNAZIONALI

FEBS Workshops

8-11/10/2005 "Epigenetic bases of genome reprogramming" (**co-organizzatore**)

14-17/10/2007 "Generating Neural Diversity in the Brain" (**co-organizzatore**)

10-13/10/2010 "Therapeutic targets in Cancer Cell Metabolism and Death" (**co-organizzatore**)

14-17/10/2012 "Molecular and Cellular Mechanisms in Angiogenesis" (**co-organizzatore**)

EMBO Workshops

14-17/10/2006 "Cell Migration and Invasion in Development and Disease" (**co-organizzatore**)

18-21/10/2008 "The NF-kappaB Network in Development and disease" (*co-organizzatore*)

Altri meeting internazionali

"Molecular and Cellular Biology of Plasminogen Activation" (*Membro del Comitato scientifico,, Reviewer degli abstracts, Program Chair, Relatore*)

IX Workshop, 19-23/10, Capri, Italy, 2003; X Workshop, Washington DC, USA, 9-13/4, 2005. XI Workshop, Sweden, 16-20/6, 2007; XII Workshop, Cold Spring Harbour, NY, USA, 31/3-4/4, 2009. XIII Workshop, Cambridge, UK, 9-13/7, 2011; XIV Workshop, South Bend, USA, 4-8/6, 2013; XV Workshop: Rome, September 22-26, 2015; XXVI ISTH Congress, Berlin July 8-13, 2017. XVI Workshop/ISFP, 2016, Shizuoka, Japan. ISFP/ XVI PA/ISFP Workshop/ISFP, Edinburgh, UK, 2018.

GORDON Conferences (Relatore su invito)

13-14/2/2016, "Plasminogen Activation & Extracellular Proteolysis", Ventura, CA, USA.

13-14/2/2018 "Plasminogen Activation & Extracellular Proteolysis", Ventura, CA, USA.

ATTIVITÀ EDITORIALI

2012-oggi: Editorial Board di J. Molecular Biochemistry (Ed. Vlachakis and Tsaniras), (<https://www.jmolbiochem.com/index.php/JmolBiochem/about/editorialTeam>)

2015-oggi: Editorial Board di "Peer Journal".
(<https://peerj.com/mpatriziastoppelli/>)

2021-oggi: Topic Editor di "Cancers".
(https://www.mdpi.com/journal/cancers/topical_advisory_panel?search=stoppelli)

2022-oggi: Associate Editor di "Frontiers in Immunology", "Frontiers in Oncology".
(<https://www.frontiersin.org/journals/immunology/editors>)

2022-oggi: Editorial Board di "Kinases and Phosphatases".
(<https://www.mdpi.com/journal/kinasesphosphatases/editors>)

ATTIVITA' DI REVISIONE

31/1/ 2003 Expert evaluator n. EEC EX2002B023739 (EEC, European Community)

1/5/2010-30/4/2012 Pool of Invited Referees ESF (European Science Foundation)

2015 Expert Database n. EX2006C108175, ERC (European Research Council)

2006-present Expert Women in Life Sciences, WILS EMBO Database.

(http://wils-database.embo.org/members_meet.php?action=member&aus=1&member_id=409)

March-April 2021: Member of Review Panel for NCN grants, National Science Centre, Poland.

March-April 2022: Member of Review Panel for NCN grants, National Science Centre, Poland.

Reviewer per le seguenti riviste: Exp Cell Res, Biol Chem, EMBO Reports, European J Biochem, J Cell Biol, J Cell Sci, J Cell Physiol, J Biol Chem, FEBS letters, Gene, Plos one, Peer J, Neoplasia, J Thromb Haem, Anti-cancer Drugs, Int J Cancer, Cancers (Topic Editor).

Reviewer le seguenti Agenzie di finanziamento: Agencie de la Recherche Francaise, AICR, UK Prostate Cancer Foundation, European Science Foundation, NCN-Poland, AIRC, ERC, Research Foundation Flanders (FWO).

ATTIVITA' DI TUTORAGGIO

Collaborazioni internazionali con scambio di personale

Finanziate da EMBO, FEBS, CNR, FIRC, SIBBM, ISFP fellowships o NCI exchange programs.

01-03/1997: CSIC-CNR accordo bilaterale con Dr J Avila, Centro de Biologia Molecular Severo Ochoa, Univ de Cantoblanco, Madrid, su: "Identification of protein kinases phosphorylating uPA" (students: O. Massa and M. Garcia-Rocha).

04/01-03/04/1993: National Cancer Institute of Health Exchange Scientists Program con la

prof M. R Rosner, Ben May Institute for Cancer Research, U. of Chicago, USA su: "Role of MAP kinases in uPA/uPAR signaling" (*Fellow, P. Franco*).

02-06/1996: EMBO short-term e CNR short mobility fellowships a sostegno di una collaborazione con il Dr T. Graf, EMBL, Heidelberg, Germany su: "Role of the Hck and pp60Src kinases in the myelomonocytic cell motility and adhesion" (*Fellow, F. Chiaradonna*).

09-12/2002: FIRC short term fellowship a P. Franco per un breve period presso il laboratorio della prof L. Ossowski, Mount Sinai School of Medicine, New York, su: "Analysis of migration inhibitors as anti- metastatics in the chorioallantoid membrane of the chick embryo".

1/12-31/1/2004: EMBO short-term fellowship a sostegno di esperimenti **con il** prof Santa Jeremy Ono, Dept Ocular Immunology, UCL, London, UK su: "Use of uPA antagonists as anti-inflammatory in a mouse model of ocular allergy" (*Fellow, I. Vocca*).

09/2007-06/2008: EMBO and FEBS short-term fellowships per una collaborazione con la prof A. Ridley, King's College, London, UK su "Determination of which of 20 Rho family GTPases, and which of their GEFs, GAPs and targets contribute to uPA/uPAR-mediated migration, using RNAi screening" (*Fellow, D. Alfano*).

10/2014-12/2014: SIBBM travel fellowship su: "3D Organotypic invasion assay" for 3D analysis of epithelial-stroma cross-talk at IHMRI, UOW, Wollongong, Australia (*Fellow, S. Belli*).

17/10/-19/12/2016 ISFP travel bursary a sostegno di un Progetto con la prof M. Ranson, IHMRI, UOW, Wollongong, Australia su: "Breast tumor-stroma crosstalk: development of multi-cellular breast tumor spheroids" (*Fellow, A. De Vincenzo*).

Tesi di Dottorato supervisionate da M.P. Stoppelli, IGB

2000-04: Tesi in Chimica biologica e Biologia Molecolare, Univ Federico II, su: "Naturally occurring inhibitors of cell migration speed uncover uPA-dependent motogen signaling mechanism" (I. Vocca).

2003-06: Tesi in Oncologia toracica, Seconda Università di Napoli, su: "Control of migration and invasion of lung cells with uPA-derived inhibitors" (P Franco).

2002-05: Tesi in Biologia avanzata, Univ Federico II, Napoli, su "Anti-apoptotic signaling in the retinal pigment epithelial cell model".

2008-10: Tesi in Oncologia toracica, Seconda Università di Napoli, su: "Modulation of cell migration and survival by c-Myc oncogene through the inhibition of uPA and uPAR".

2012-2015: Tesi in Biotecnologie Moleculari e Cellulari, Università L. Vanvitelli, Caserta, su: "Effect of c-Myc and V12 Ras on the cross-talk between epithelial cells and stromal fibroblasts: analysis of secreted factors" (A. De Vincenzo).

2014-17: Tesi in Scienze Biomolecolari, Università L. Vanvitelli", Caserta. su: "Modulation of tumour microenvironment: new decapeptides inhibiting human fibroblasts pro-tumoral activity" (S. Belli).

Tesi di "Laurea magistrale" supervisionate da M.P. Stoppelli, IGB

1994-96: "Pro-uPA phosphorylation: localisation and functional effect of Pser", Ciro Iaccarino.

1996-97: "Role of Hck in myelomonocytic adhesion and motility". Laura Fontana.

1998-99: "Role of GF domain in the chemotactic ability of human uPA". Letizia Cito

2001-2002: "Generation and characterisation of a human uPA variant devoid of chemotactic and proadhesive abilities". Daniela Alfano.

2003-2004: "Regulation of the proliferation/apoptosis ration in RPE cells". Viviana Pisa.

2003-2004: "Inhibition of invasion by primary cells from human tumours". Nadia Gambi.

2005-2006: "Silencing of alphav integrin expression by RNA interference". Giusy Votta.

2010-11: "Effect of membrane sphingolipid composition on uPAR-dependent migration". P. Pace.

2011-12: "Pro-migratory or inhibitory effect of peptides derived from human uPA". C. Sarno.

2011-12: "Role of glycosphingolipids in uPAR- and EGFR-dependent cell migration" M. Nappo.

2016-17, "Modulation of FAK adhesion kinase in HT1080 fibrosarcoma cells". I. Maietta.

- 2017-18 "Silencing of αv integrin subunit in human cell lines of different tissue origin". R. Dieli.
- 2017-18 "The αv integrin subunit as therapeutic target in mammary tumors". M. Teresa Saviano.
- 2020-21 "Vascular mimicry and migration of U87 cells inhibited by the novel uPAcyclin decapeptide" M. D'Angelo.
- 2020-21 "Vascular mimicry formation of U87 glioblastoma cells inhibited by the novel uPA cyclin decapaptide" I. Camerino.

BREVETTI

1. Rosner R.M., Thompson K., Garcia J.V., Stoppelli M.P. "Dp100 EGF and insulin binding protein from *Drosophila* cells", performed at **Massachussets Institute of Technology, Boston, USA. U.S.A. Patent n.4,774,321, pubbl. 27/9/1988.**
2. Blasi F., Mastronicola M.R., Stoppelli M.P., Welinder K., Correas I. "Phosphorylated plasminogen activators and new muteins correlated to the phosphorylated plasminogen activators", **International Patent n. C12N9/64/C12P21/00 A61K37/54, Pubbl. 1/11/1990.**
3. Stoppelli M.P. Franco P., Belli S. Iommelli F., Carotenuto A., Grieco P., Novellino E. "Nuovi peptidi e peptidomimetici come agenti potenti e mirati nella prevenzione e nel trattamento dell'invasione e metastasi tumorali", **Italian Patent, CNR-Università Federico II, n.1020180001051, 22/11/2018.**

CAPITOLI DI LIBRO

1. Stoppelli M.P., Verde P., Galeffi P., Locatelli E. and Blasi F. Regulation of the urokinase mRNA synthesis by tumor promoters and epidermal growth factor. "Peptide hormones, Biomembranes and Cell Growth", C.G. Bolis, L. Frati and R. Verna Eds., Plenum Press (1984).
2. Verde P., Stoppelli M.P., Galeffi P., et al. Preliminary studies on the structure and regulation of the human urokinase gene: effect of tumor promoters, EGF and transformation by SV40. "Progress in Fibrinolysis", vol. VII, Churchill Livingstone (1985).
3. Appella E., Robinson E., Ulrich S., Stoppelli M.P., Corti A., Cassani G. and Blasi F. The receptor binding sequence of human urokinase. "Methods in protein sequence analysis" Kenneth A. Walsh Ed., The human Press Inc. (1987).
4. Blasi F., Verde P., Riccio A., Stoppelli M.P., Cubellis M.V., Grimaldi G., Franzé A.M. Molecular biology of plasminogen activation and its role in the invasivness of malignant cells. "Molecular pathology of gene expression", Raven press, Serono Symposia, vol.2, 65-79 (1989).
5. Blasi F. and Stoppelli M.P. Molecular basis for plasminogen activation, surface proteolysis and their relation to cancer. In: "Growth regulation and Carcinogenesis" ed by C.R.C. press, vol. 2, p.133-147 (1991).
6. Blasi F. and Stoppelli M.P. Specificity and properties of the human urokinase receptor. In: "Growth regulation and Carcinogenesis" ed by C.R.C. press, vol. 2, p.149-161 (1991).
7. M. P. Stoppelli The Plasminogen Activation System in Cell Invasion. In "Cell invasion" by Landes Biosci, Editor: Heino, Jyrki, Veli-Matti Kahari p. 128-141, ISBN: 1-58706-073-6 (2002).
8. M. P. Stoppelli, L. M Andersen, G. Votta, and Peter A. Andreassen Engineered antagonists of uPA and PAI-1. In the "The Cancer Degradome-Proteases and Cancer Biology", Springer Science, Business Media and Humana Press (2008).
9. F. Mantile, P. Franco, M. Patrizia Stoppelli, G. L. Liguori "Biological role and clinical relevance of extracellular vesicles as key mediators of cell communication in cancer." In "Biological Membrane Vesicles: Scientific, Biotechnological and Clinical Considerations" Eds by G. Pocsfalvi, A. Bongiovanni, M. Manno, V. Kralj-Iglic, in Advances in biomembranes and lipid self-assembly. Elsevier (2020). <https://www.sciencedirect.com/science/article/abs/pii/S245196342030025X>

PUBBLICAZIONI IN EXTENSO

1. Ferraiuolo R., Stoppelli M.P., Verde P., Bullock S., Lazzaro P., Blasi F. and Pietropaolo C. Transcriptional induction of urokinase in cultured human kidney carcinoma cells by tetradecanoyl-phorbol acetate. *J. Cell Physiology*, **121**: 368-364 (1984).
2. Verde P., Galeffi P., Stoppelli M.P. and Blasi F. Molecular cloning of human urokinase cDNA: transcriptional regulation in A431 cells. *Haemostasis*, **14**: 59 (1984).
3. Verde P., Stoppelli M.P., Galeffi P., Di Nocera P.P. and Blasi F. Identification and primary sequence of an unspliced human urokinase polyA+ RNA. *Proc. Natl. Acad. Sci.*, **81**: 4727-4731 (1984).
4. Stoppelli M.P., Corti A., Soffientini A., Cassani G., Blasi F. and Assoian R.K. Differentiation-enhanced binding of the aminoterminal fragment of of human urokinase plasminogen activator to a specific receptor on U937 monocytes. *Proc. Natl. Acad. Sci.*, **82**: 4939-4943 (1985).
5. Stoppelli M.P., Verde P., Grimaldi G., Locatelli E. and Blasi F. Increase in urokinase plasminogen activator mRNA in human carcinoma cells is a primary effect of the potent tumor promoter phorbol myristate acetate. *J. Cell Biology* **102**: 1235-1241 (1986).
6. Stoppelli M.P., Tacchetti C., Cubellis M.V., Corti A., Hearing V., Appella E., Cassani G. and Blasi F. Autocrine saturation of the pro-urokinase receptors. *Cell*, **45**: 675-684 (1986).
7. Blasi F., Stoppelli M.P., Cubellis M.V. The receptor for human urokinase plasminogen activator. *J. Cell Biochemistry*, **32**, n. 3: 179-186 (1986).
8. Appella E., Robinson E., Ulrich S., Stoppelli M.P., Corti A., Cassani G. and Blasi F. The receptor binding sequence of urokinase: biological function for the growth factor module of proteases. *J. Biological Chemistry*, **262**: 4437-4440 (1987).
9. Garcia J.V., Thompson K.L., Stoppelli M.P., Decker S. and Rosner R.M. EGF and insulin related growth factors compete for binding to a single Drosophila protein. *J. Cell Biochemistry*, **11A**: 25-26 (1987).
10. Garcia J.V., Stoppelli M.P., Thompson K.L., Decker S., Rosner R.M. Characterization of a Drosophila protein that binds both EGF and insulin related growth factors. *J. Cell Biology*, **105**: 449-456 (1987).
11. Stoppelli M.P., Garcia J.V., Decker S., and Rosner R. M. Developmental regulation of an insulin/ EGF binding protein in Drosophila. *J. Cell Biochemistry*, **2C** (1987).
12. Stoppelli M.P., Garcia J.V., Decker S., and Rosner R. M. Developmental regulation of an insulin degrading enzyme in Drosophila melanogaster. *Proc. Natl. Acad. Sci.*, **85**: 3469-3473 (1988).
13. Garcia J.V., Stoppelli M.P., Decker S. and Rosner R.M. An insulin-epidermal growth factor binding protein from Drosophila has insulin degrading activity. *J. Cell Biology*, **108**:177-182 (1989).
14. Picone R., Locatelli E.K., Nielsen L.S., Mastronicola M.R., Cubellis M.V., Stoppelli M.P. and Blasi F. Phorbol ester PMA regulates the affinity and the number of the urokinase receptors in monocyte-like U937 cells. *J. Cell Biology*, **108**: 693-702 (1989).
15. Mastronicola M.R., Stoppelli M.P., Migliaccio A., Auricchio F. and Blasi F. Serine phosphorylation of biosynthetic human urokinase plasminogen activator. *Fibrinolysis*, **3**:13-14 (1989).
16. Robbiati F., Nolli M.L., Sarubbi E., Soffientini A., Stoppelli M.P., Cassani G., Parenti F. and Blasi F. A recombinant pro-urokinase missing the growth factor-like domain does not bind the urokinase receptor. *Fibrinolysis*, **4**: 53-60 (1990).
17. Mastronicola M.R., Stoppelli M.P., Migliaccio A., Auricchio F. and Blasi F. Serine phosphorylation of biosynthetic pro-uPA from human tumor cells. *FEBS letters*, **266**:109-114 (1990).
18. Stoppelli M.P., Mastronicola M.R., Franco P., De Cesare D, Welinder K., Verde P. and Blasi F. Serine phosphorylation of biosynthetically labeled uPA from A431 human carcinoma cells. resistance to PAI-1 inhibition. *Fibrinolysis*, **4**: 90 (1990).
19. Stoppelli M.P. Fermare le metastasi, una speranza vicina. *Il Giornale del Medico*, **19**: 2 (1990).
20. Stoppelli M.P. Come si ferma il viaggio a distanza. *Corriere Medico*, **30**: 8-9 (1990).
21. Budillon A., Tagliaferri P., Caraglia M., Torrisi M.R., Normanno N., Iacobelli S., Palmieri G., Stoppelli M.P., Frati L., Bianco A.R. Upregulation of epidermal growth factor receptor induced by alpha-interferon

- in human epidermoid cancer cells. **Cancer Research**, **51**: 1294-1299 (1991).
22. Mastronicola M., Franco P., De Cesare D., Massa O., Stoppelli M.P. Phosphorylation of urokinase is not a limiting step in biosynthesis, but results in a reduced PAI-1 sensitivity. **Fibrinolysis**, **6**: p.117-120 (1992).
23. Franco P., Mastronicola M.R., De Cesare D., Nolli M.L., Tze-Chei Wun, Verde P., Blasi F. and Stoppelli M.P. Separation and characterization of non phosphorylated and serine phosphorylated pro-uPA.Catalytic properties and sensitivity to PAI-1. **J. Biological Chemistry**, **267**: 19369-19372 (1992).
24. Del Vecchio S., Stoppelli M.P., Carriero M., Fonti R., Massa O., Yong L.P., Botti G., Cerra M., D'Aiuto G., Salvatore M. Human urokinase receptor concentration in malignant and benign breast tumors by in vitro quantitative autoradiography.Comparison with uPA levels. **Cancer Research**, **53**, 3198-3206, (1993).
25. Del Vecchio S., Stoppelli M.P., Carriero M., Fonti R., Massa O., Yong L.P., Botti G., Cerra M., D'Aiuto G. and Salvatore M. In vitro receptor imaging for characterization of human solid tumors. **Nucl. Med. Biol.** **21**, no. 5, 771-774 (1994).
26. Carriero M.V., Franco P., Del Vecchio S., Massa O., Botti G., D'Aiuto G., Stoppelli M.P. and Salvatore M. Tissue distribution of soluble and receptor-bound urokinase in human breast cancer using a panel of monoclonal antibodies. **Cancer Research**, **54**, 5445-5454 (1994).
27. Blasi F., Conese M.; Moller L.B., Pedersen N., Cavallaro U., Cubellis Soria M.R., Stoppelli M.P., Talarico D., Teesalu T., Valcamonica S. The urokinase receptor: structure, regulation and inhibitor-mediated internalization. **Fibrinolysis**, **8**, 182-188 (1994).
28. Franco P., Iaccarino C., Chiaradonna F., Brandazza A., Iavarone C., Mastronicola M.R., Nolli M.L. and Stoppelli M.P. Phosphorylation of pro-urokinase on Ser^{138/303} impairs its receptor-dependent ability to promote myelomonocytic adhesion and motility. **J. Cell Biology**, **137** n.3, 779-791 (1997).
29. Carriero M.V., Del Vecchio S., Franco P., Potena M., Chiaradonna F., Botti G., Stoppelli M.P., Salvatore M. Vitronectin binding to urokinase receptor in human breast cancer. **Clinical Cancer Research**, **3**, 1299-1308 (1997).
30. Franco P., Massa O., Garcia-Rocha M., Chiaradonna F., Iaccarino C., Correas I., Mendez E., Avila J., Blasi F. and Stoppelli M.P. Protein kinase C-dependent in vivo phosphorylation of pro-urokinase leads to the formation of a receptor competitive antagonist. **J. Biological Chemistry**, **273**, 27734-27740 (1998).
31. Blasi, F. and Stoppelli, M.P. Proteases and cancer invasion: from belief to certainty. **Biochimica et Biophysica Acta**, **1423**, 35-44 (1998).
32. F. Chiaradonna, L. Fontana, C. Iavarone, M. V. Carriero, G. Scholz, M. V. Barone and M. P. Stoppelli Urokinase receptor-dependent and independent p56/59^{hck} activation state is a molecular switch between myelomonocytic cell motility and adherence. **EMBO J.**, **11**, 3013-3023 (1999).
33. M. V. Carriero, S. Del Vecchio, M. Capozzoli, P. Franco, L. Fontana, A. Zannetti, G. Botti, G. D'Aiuto, M. Salvatore and M. P. Stoppelli Urokinase receptor interacts with \circ v \circ 5 vitronectin receptor promoting urokinase-dependent cell migration in breast cancer. **Cancer Research**, **59**, 5307-5314 (1999).
34. Zannetti A., S. Del Vecchio, M. V. Carriero, R. Fonti, P. Franco, G. Botti, G. D'Aiuto, M. P. Stoppelli and M. Salvatore. Coordinate upregulation of Sp1 DNA binding activity and urokinase receptor expression in breast carcinoma. **Cancer Research**, **60**, 1546-51 (2000).
35. Metafora V. , P. Franco, O. Massa, F. Morelli, P. Stiuso, P. Ferranti, G. Mamone, A. Malorni, M. P. Stoppelli and S. Metafora. Phosphorylation of seminal vesicle protein IV on Ser58 enhances its peroxidase-stimulating activity. **European J. Biochemistry**, **268**, 3858-3869 (2001).
36. Carriero M.V. , P. Franco L. Gargiulo, I. Vocca, L. Cito, L. Fontana, C. Iaccarino, G. Del Pozzo, J. Guardiola and M. P. Stoppelli. Inhibition of receptor-dependent urokinase signaling ability by specific Ser to Glu substitutions. **Biological Chemistry**, **383**, 107-113 (2002).
37. Silvestri I., I. Longanesi Cattani, P. Franco, G. Pirozzi, G. Botti, M.P. Stoppelli, M.V. Carriero. Engaged urokinase receptors enhance tumor breast cell migration and invasion by upregulating avb5 vitronectin

- receptor cell surface expression. **International J. Cancer**, **102**, 562-71 (2002).
38. Alfano D., P. Franco , I.Vocca, N. Gambi , V. Pisa , A Mancini , M Caputi , MV Carriero, I Iaccarino , M.P. Stoppelli . The urokinase plasminogen activator and its receptor: role in cell growth and apoptosis. **Thrombosis and Haemostasis**, **93**(2):205-11 (2005).
39. Gargiulo L., I. Longanesi-Cattani, K. Bifulco, P. Franco, R. Raiola, P. Campiglia, P. Grieco, Peluso G, Stoppelli MP, Carriero MV. Cross-talk between fMLP and vitronectin receptors triggered by urokinase receptor-derived SRSRY peptide. **J. Biological Chemistry** **280**(26):25225-32 (2005).
40. Zannetti A., S. Del Vecchio, A. Romanelli, S. Scala, M. Saviano, G. Cali, M.P. Stoppelli, Pedone C, Salvatore M. Inhibition of Sp1 activity by a decoy PNA-DNA chimera prevents urokinase receptor expression and migration of breast cancer cells. **Biochem Pharmacol.** **70**(9):1277-87 (2005).
41. Alfano D., I. Iaccarino, M.P. Stoppelli Urokinase signalling through its receptor protects against anoikis by increasing Bcl-xL expression levels. **J. Biological Chemistry** **281**(26):17758-67 (2006).
42. Franco P., I. Vocca, M.V. Carriero, D. Alfano, L. Cito, I. Longanesi-Cattani, P. Grieco, L. Ossowski and M.P. Stoppelli Urokinase receptor activation by a novel interaction between connecting peptide region of urokinase and α _v β ₅ integrin. **J. Cell Science**, **119**:3424-3434 (2006).
43. Bifulco K., I. Longanesi-Cattani, L. Gargiulo, O. Maglio, M. De Rosa, M. P. Stoppelli, V. Pavone and M. V. Carriero An Urokinase Receptor Antagonist That Inhibits Cell Migration By Blocking The Formyl Peptide Receptor. **FEBS Letters**, **582**(7):1141-6 (2008).
44. Vocca I. , P. Franco, D. Alfano, G. Votta, M.V. Carriero, Y. Estrada, P.A. Netti, L. Ossowski and M.P. Stoppelli Inhibition of migration and invasion of carcinoma cells by uPA-derived antagonists of alphavbeta5 integrin activation. **International J. Cancer**, **124**, 316-325 (2009).
45. Carriero M.V. , P. Franco, I. Vocca, D. Alfano, G. Votta, I. Longanesi-Cattani, K. Bifulco, Alessandro Mancini, Mario Caputi, Maria Patrizia Stoppelli. Structure, function and antagonists of urokinase-type plasminogen activator. **Frontiers in Bioscience**, Jan 1;14:3782-94 (2009).
46. Carriero M.V., I. Longanesi-Cattani, K. Bifulco, O. Maglio, L. Lista, A. Barbieri, M.T. Masucci, C. Arra, R. Franco, M. De Rosa, M. P. Stoppelli, And V. Pavone. Structure-based design of an urokinase receptor-derived peptide inhibiting cell migration and lung metastasis. **Molecular Cancer Therapeutics**, **8**(9):2708-17 (2009).
47. Alfano D., G. Votta, A. Schulze, J. Downward Mario Caputi, Maria Patrizia Stoppelli & Ingram Iaccarino. Modulation of cellular migration and survival by c-Myc through the down-regulation of urokinase (uPA) and uPA receptor. **Molecular and Cellular Biology**, vol 30, n.7, p.1838-1851 (2010).
48. Bifulco K., I. Longanesi-Cattani, M. Gala, G. Di Carluccio, M.T. Masucci, V. Pavone, M.P. Stoppelli, and M.V. Carriero The soluble form of urokinase receptor promotes angiogenesis through its Ser⁸⁸-Arg-Ser-Arg-Tyr⁹² chemotactic sequence. **J. Thrombosis and Haemostasis**, Dec. **8**(12): 2789-99 (2010).
49. Vento MT. , V. Zazzu A. Loffreda, J. Cross, J. Downward M P. Stoppelli & I. Iaccarino Praf2 is a novel Bcl-xL/Bcl-2 interacting protein with the ability to modulate cell survival of cancer cells. **PLoS One**. **5**(12) (2010).
50. Carriero M.V. , P. Franco, G. Votta, I. Longanesi-Cattani, M.T. Vento, M.T. Masucci, A. Mancini, M. Caputi, I. Iaccarino, M.P. Stoppelli . Regulation of cell migration and invasion by specific modules of urokinase PA: mechanistic insights and peptidic inhibitors. **Current Drug Targets**. **12**(12):1761-71 (2011).
51. Carriero M.V. and M. P. Stoppelli. The urokinase-type plasminogen activator and the generation of inhibitors of urokinase activity and signaling. **Current Pharmaceutical Design**, **17**(19):1944-61 (2011).
52. Pocsfalvi G., G. Votta, A. De Vincenzo, I. Fiume, D. Albert A. Raj, Gç.Marra, M. P. Stoppelli and I. Iaccarino Analysis of secretome changes uncovers an autocrine/paracrine component in the modulation of cell proliferation and motility by c-Myc. **J. Proteome Research**, **10**(12):5326-37 (2011).
53. Alfano D., P. Ragno, M. P. Stoppelli and A. Ridley. RhoB regulates uPAR signalling. **J. Cell Science**, **125**:2369-80 (2012).
54. Bifulco K., I. Longanesi-Cattani, P. Franco, V. Pavone, P. Mugione, G. Di Carluccio, M.T. Masucci, C. Arra, G. Pirozzi, M. P. Stoppelli, and M.V.Carriero. Single amino acid substitutions in the chemotactic

- sequence of urokinase receptor modulate cell migration and invasion. **PLoS One.** 7(9): Epub Sep 25 (2012).
55. Franco P., Carotenuto A., Marcozzi C., Votta G., Sarno C., Iaccarino I., D. Brancaccio, Novellino E., Grieco P. and Stoppelli M. P. Opposite modulation of cell migration by distinct subregions of urokinase connecting peptide. **ChemBioChem**, 14(7):882-9 (2013).
56. Avellino R., Carrella S., Pirozzi M., Franco P., Risolino M., Verde P., Stoppelli M.P., Banfi S., Conte I. MiR-204 targeting of Ankrd13A controls both mesenchymal neural crest and lens cell migration. **PLoS One**, 7(9):e44806, 2012.
57. Bifulco K., Longanesi-Cattani I., Liguori E., Arra C., Domenica, R. Masucci MT, Pavone V, Stoppelli M.P. and Carriero MV. An urokinase receptor-derived peptide inhibiting VEGF-dependent directional migration and vascular sprouting. **Mol Cancer Therapeutics**, 12(10):1981-93, 2013.
58. K. Bifulco, G. Votta, V. Ingangi, G. Di Carluccio¹, D. Rea¹, S. Losito, N. Montuori , P.Ragno, M. P. Stoppelli, C. Arra, M.V. Carriero. Urokinase receptor promotes ovarian cancer cell dissemination through its ser⁸⁸-arg-ser-arg-tyr⁹² chemotactic sequence. **Oncotarget**, 5(12):4154-69, 2014.
59. De Rosa V, Iommelli F, Monti M, Fonti R, Votta G, Stoppelli MP, Del Vecchio S. Reversal of Warburg effect and reactivation of oxidative phosphorylation by differential inhibition of EGFR signaling pathways in non small cell lung cancer. **Clin Cancer Res.** 21(22): 5110-5120, 2015.
60. Ragone C, Minopoli M, Ingangi V, Botti G, Fratangelo F, Pessi A, Stoppelli M.P., Ascierto PA, Ciliberto G, Motti ML, Carriero MV. Targeting the crosstalk between urokinase receptor and the Formyl peptide receptor type 1 to prevent invasion and trans-endothelial migration of melanoma cells. **J Exp Clin Cancer Res.** 36(1):180, 2017.
61. De Vincenzo A., Belli S., Franco P., Telesca M.L., Iaccarino I., Botti G., Carriero M.V., Ranson M. and Stoppelli M.P. Paracrine recruitment and activation of fibroblasts by c-Myc expressing breast epithelial cells through the IGF/IGF-1R axis. **International Journal of Cancer**, 145(10):2827-2839, 2019.
62. O. Pastorino, M. T. Gentile ¹, A. Mancini, N. Del Gaudio, A. Di Costanzo, A. Bajetto, P. Franco, L. Altucci, T. Florio, M. P. Stoppelli and L. Colucci-D'Amato. Histone deacetylase inhibitors impair vasculogenic mimicry from glioblastoma cells. **Cancers**, 11(6), E747, 2019.
63. M. Minopoli, G. Botti, V. Gigantino, C. Ragone, S. Sarno; M.L. Motti, G. Scognamiglio, S. Greggi, C. Scaffa, M. S. Roca, M.P. Stoppelli, G. Ciliberto, N.S. Losito, M. V. Carriero. Targeting the Formyl Peptide Receptor type 1 to prevent the adhesion of ovarian cancer cells onto mesothelium and subsequent invasion. **Journal of Experimental & Clinical Cancer Research**, 38(1):459, 2019.
64. M. Minopoli, S. Sarno, G. Di Carluccio, R. Azzaro, S. Costantini, F. Fazioli, M. Gallo, G. Apice, L. Cannella, D. Rea, M.P.Stoppelli, D. Boraschi, A. Budillon, K. Scotlandi, A. De Chiara, and M. V. Carriero. Inhibiting monocyte recruitment to prevent the pro-tumoral activity of tumor-associated macrophages in chondrosarcoma. **Cells**, 9(4), 1062, 2020.
65. Belli S., Franco P., Iommelli F., De Vincenzo A., Brancaccio D., Telesca M.L., Merlino F., Novellino E., Ranson M., Del Vecchio S., Grieco P., Carotenuto A., Stoppelli M. P. Breast tumor cell invasion and pro-invasive activity of cancer-associated fibroblasts co-targeted by novel urokinase-derived decapeptides. **Cancers**, 12(9), 2404, 2020.
66. F. Iommelli, V. De Rosa, C. Terlizzi, R. Fonti, R. Camerlingo, M. P. Stoppelli, C. Allison Stewart, L. Averett Byers, D. Piwnica-Worms, S. Del Vecchio. A reversible shift of driver dependence from EGFR to Notch1 in non-small cell lung cancer as a cause of resistance to tyrosine kinase inhibitors. **Cancers**, 13(9), 2021.
67. Alfano D., Franco P., Stoppelli M.P. Modulation of cellular function by the urokinase receptor signalling: a mechanistic view. **Frontiers in Cell and Developmental Biology**, Apr 8, 10:818616, 2022.
68. I. Scognamiglio, L. Cocca, I. Puoti, F. Palma, F. Ingenito, C. Quintavalle, A. Affinito, G. Roscigno, S. Nuzzo, M. P. Stoppelli, S. Belli, G. Condorelli Exosomal microRNAs synergistically trigger stromal fibroblasts in breast cancer. **Molecular Therapy - Nucleic Acids**, Feb22, 28, 17-31, 2022.