



## Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s) **Fabrizio MAINIERO**  
Address(es) **Department of Experimental Medicine  
"Sapienza" University of Rome  
Viale Regina Elena 324  
00161 Rome (Italy)**  
Telephone(s) **06-49970966 (work)**  
Fax(es) **06-4453244 (work)**  
E-mail **fabrizio.mainiero@uniroma1.it**

Nationality **Italian**

Gender **Male**

**Occupational field** (S s/d) General Pathology, Immunology and Immunopathology-MED04

### Work experience

Dates  
**2008- Full Professor of General Pathology, Immunology and Immunopathology, Dep. of Experimental Medicine, University "La Sapienza", Rome.**  
**2000- Associate Professor of General Pathology, Immunology and Immunopathology, Dep. of Experimental Medicine and Pathology, University "La Sapienza", Rome.**  
**1995- University Researcher (SSD MED04), Dep. of Experimental Medicine and Pathology, University "La Sapienza", Rome.**  
**1993-1996- Research Associate in the laboratory of Dr. F.G. Giancotti, NYU Medical Center and Sloan-Kettering Cancer Center, New York. Recipient of an American-Italian Cancer Foundation (AICF) fellowship.**  
**1989- Research Associate in the Immunology laboratory of Prof. M.O. de Landàzuri, Hospital de la Princesa, Madrid.**  
**1988-1993- Internship in Laboratory of Immunology, Department of Experimental Medicine, University of Rome "La Sapienza".**

Occupation or position held **Full Professor of General Pathology, Immunology and Immunopathology-MED04**

Main activities and responsibilities

**Academic teacher, Project coordinator of research projects and Clinical and Laboratory Activity in the field of General and Clinical Pathology, Immunology and Immunopathology.**

**TEACHING ACTIVITY:**

-from 1996/1997 the teacher of Immunology, Immunopathology, Pathology and Physiopathology in Medical School; Speciality School in Rheumatology, Nephrology, Clinical Pathology, Gynecology, and Nuclear Medicine; and Nursery School, University "La Sapienza", Rome.

**SCIENTIFIC and RESEARCH ACTIVITY:**

-Study of role of beta 1 and beta 4 integrin receptors in the control of proliferation, differentiation, apoptosis and specific gene expression on normal and neoplastic epithelial cells.

-Study of the expression and adhesive function of integrin receptors in Natural Killer (NK) cells.

-Study of signal transduction events triggered by beta 1 integrin receptor crosslinking on NK cells and their role in the control of NK functions.

- Study of molecular mechanisms in neoplastic transformation.

- Study of the role of chemokines and cytokines in neutrophils functions and in inflammatory and autoimmune diseases.

**CLINICAL and LABORATORY ACTIVITY:**

2010-today: Director F.F. of the Immunopathological Unit (UOC-SSDC03), Policlinico Umberto I° and "Sapienza" University of Rome

2005-today: Director of the Laboratory of Immunological Diagnosis of Celiac Disease, Branch of the Immunological and Immunopathological Unit (UOC-SSDC03), Policlinico Umberto I° and "Sapienza" University of Rome

1997-2005: Doctor in the Laboratory of Cellular Immunology and Immunopathology, Policlinico Umberto I° and "Sapienza" University of Rome

Name and address of employer

**Department of Experimental Medicine  
"Sapienza" University of Rome and Policlinico Umberto I°  
Viale Regina Elena 324  
00161 Rome (Italy)**

Sector

**General and Clinical Pathology, Immunology and Immunopathology**

**Education and training**

Dates

**1993**

Title of qualification awarded

**Resident in Clinical Pathology**

**1988**

**Medical Degree**

Name and type of organisation providing education and training

**Faculty of Medicine and Surgery, University of Rome "La Sapienza"**

**Personal skills and competences**

Mother tongue(s)

**Italian**

Other language(s)

**English**

Self-assessment

European level (\*)

Language

Language

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
X		X		X		X		X	

(\*) [Common European Framework of Reference for Languages](#)

Additional information

**MEMBER OF SCIENTIFIC SOCIETIES:**

Italian Society of Immunology, Clinical Immunology and Allergology (SIICA)

Society for Natural Immunity

Association of Cell Biology and Differentiation (ABCD) - Meeting Organization for 2003-2004 on "Signal Transduction in Adhesion and Differentiation".

Accademic member of Accademia Medica di Roma.

Annexes

List any items attached.

Scientific Publication

Textbooks (Chapters, etc.)

**Scientific Publications**

**Peer reviewed selected publications of FABRIZIO MAINIERO  
[Impact Factor= JCR 2014]**

- |    |   |   |  |       |
|----|---|---|--|-------|
| 01 | Paolini R., Procopio A., <b>Mainiero F.</b> , Piccoli M., Frati L., Santoni A.  | Modulation of CD16 antigen on NK cells and granulocytes by protein kinase C activators and inhibitors and activation molecules expressed by human natural killer cells. | In "Natural killer cells: biology and clinical application", (Schmidt Ed.), 80-84, 1990.                             | ----  |
| 02 | Santoni A., Gismondi A., Paolini R., Procopio A., Morrone S., <b>Mainiero F.</b> , Santoni G., Piccoli M., Frati L.         | Adhesion and activation molecules expressed by human natural killer cells.  | Cytotechnology, 5, 117-121, 1991.  | 0.703 |
| 03 | Morrone S., Gismondi A., <b>Mainiero F.</b> , Santoni A.  | Analisi citofluorimetrica dell'espressione delle molecole di adesione in cellule NK umane.  | Ligand Quarterly, 10, (3), 368-372, 1991.  | ----  |
| 04 | Santoni A., Gismondi A., Palmieri G., Morrone S., <b>Mainiero F.</b> , Santoni G., Humphries M. J., Piccoli M., Frati L.    | Fibronectin receptors on NK cells.  | In "NK cell-mediated cytotoxicity: receptors, signalling and mechanisms", (Lotzova and Herberman Eds.), 85-96, 1992. | ----  |
| 05 | Gismondi A., <b>Mainiero F.</b> , Morrone S., Palmieri G., Piccoli M., Frati L., Santoni A.                                 | Triggering through CD16 or phorbol esters enhances adhesion of NK cells to laminin via very late antigen 6.   | J. Exp. Med., 176, 1251-1257, 1992.  | 12.52 |
| 06 | Gismondi A., <b>Mainiero F.</b> , Palmieri G., Morrone S., Milella M., Piccoli M., Frati L., Santoni A.                     | Activation-dependent regulation of $\beta$ 1 integrin expression and function in human natural killer cells.  | In "Cell Adhesion Molecules" (Hemler and Mihich Eds.), 195-208, 1993.  | ----  |
| 07 | Ruco L., Paradiso P., Pittiglio M., Diodoro M.G., Gearing A.J.H., <b>Mainiero F.</b> , Gismondi A., Santoni A., Baroni C.D. | Tissue distribution of Very Late Activation Antigens-1/6 and Very Late Activation Antigen ligands in the normal thymus and in thymoma.                                  | Amer. J. Pathol., 142, 765-772, 1993.  | 4.59  |
| 08 | <b>Mainiero F.</b> , Gismondi A., M. Milella, S. Morrone, Palmieri G, Piccoli M., Frati L., Santoni A.                      | Long term activation of natural killer cells results in modulation of $\beta$ 1 integrin expression and function.   | J. Immunol., 152, 446-454, 1994.   | 4.92  |
| 09 | Santoni A., Gismondi A., <b>Mainiero F.</b> , Palmieri G., Morrone S., Milella M., Piccoli M., Frati L.                     | Regulation and function of fibronectin receptors expressed by natural killer cells.   | In "Tumor Immunology and Cancer Therapy", (Goldfarb and Whiteside Eds), 55-62, 1994.                                 | ----  |
| 10 | Tubaro E., Croce C., Cavallo G.,  | In vitro and in vivo impact of a new  | Agents Actions, 42,107-113, 1994.  | 1.115 |

	Belogi L., Guida G., Santiangeli C., Cifone M.G., Santoni A., <b>Mainiero F.</b>	glycosphingolipid on neutrophils.		
11	Tubaro E., Belogi L., Cavallo G., Guida G., Santoni A., <b>Mainiero F.</b>	Effect of a new de-N-acetyl-lysoglycosphingolipid on some tumour models.	Eur. J. Pharmacol., 294, 555-563, 1995.	2.53
12	Giancotti F.G. and <b>Mainiero F.</b>	Integrin-mediated adhesion and signaling in tumorigenesis.	Biochim. et Biophys. Acta., 1198, 47-64, 1994.	4.66
13	Giancotti F.G., Spinardi L., <b>Mainiero F.</b> , Sanders R.	Expression of heterologous integrin genes in cultured eukaryotic cells.	Methods Enzymol., 245, 297-316, 1994.	2.09
14	<b>Mainiero F.</b> , Pepe A., Wary K.K., Spinardi L., Mohammadi M., Schlessinger J., Giancotti F. G.	Signal trasduction by the $\alpha 6\beta 4$ integrin: distinct $\beta 4$ subunit sites mediate the recruitment of Shc/Grb2 with the cytoskeleton of hemidesmosomes.	EMBO J., 14, 4470-4481, 1995.	10.43
15	<b>Mainiero F.</b> , Pepe A., Yeon M., Ren Y., Giancotti F. G.	The intracellular functions of $\alpha 6\beta 4$ integrin are regulated by EGF.	J. Cell Biol., 134, 241-253, 1996.	9.83
16	Wary K.K., <b>Mainiero F.</b> , Isakoff S.J., Marcantonio E.E., Giancotti F.G.	The adaptor protein Shc couples a class of integrins to the control of cell cycle progression.	Cell, 87, 733-743, 1996.	32.24
17	<b>Mainiero F.</b> , Murgia C., Wary K.K., Curatola A.M., Pepe A., Blumentberg M., Westwick J.K., Der C.J., Giancotti F.G.	The coupling of $\alpha 6\beta 4$ integrin to Ras-MAP kinase pathways mediated by Shc controls keratinocyte proliferation.	EMBO J., 16, 2365-2375, 1997.	10.43
18	Gismondi A., Palmieri G., <b>Mainiero F.</b> , Milella M., Morrone S., Santoni A.	Ligation of $\beta 1$ integrins on natural killer (NK) cells induces intracellular signaling events and enhances cytotoxic funtions.	In "The Pezcoller Foundation Journal", 4, 3-8, 1997.	----
19	Gismondi A., Bisogno L., <b>Mainiero F.</b> , Palmieri G., Piccoli M., Frati L., Santoni A.	Proline-rich tyrosine kinase-2 activation by $\beta 1$ integrin fibronectin receptor cross-linking and association with paxillin in human natural killer cells.	J. Immunol., 159, 4729-4736, 1997.	4.92
20	<b>Mainiero F.</b> and Santoni A.	Fibronectin.	In "Encyclopedia of Immunology", Accademic Press Ltd, 1998.	----
21	Sanders R.J., <b>Mainiero F.</b> , Giancotti F.G.	The role of integrins in tumorigenesis and metastasis.	Cancer Invest., 16, 329-344, 1998.	2.22
22	<b>Mainiero F.</b> , Gismondi A., Soriani A., Cippitelli M., Palmieri G., Jacobelli J., Piccoli M., Frati L., Santoni A.	Integrin-mediated ras-extracellular regulated kinase (ERK) signalling regulates interferon- $\gamma$ (IFN- $\gamma$ ) production in human NK cells.	J. Exp. Med., 188, 1267-75, 1998.	12.52
23	Gismondi A., Jacobelli J., <b>Mainiero F.</b> , Paolini R., Piccoli M., Frati L., Santoni A.	Functional role for Pyk2 tyrosine kinase in NK cell-mediated natural cytotoxicity.	J. Immunol., 164, 2272-2276, 2000.	4.92
24	<b>Mainiero F.</b> , Soriani A., Strippoli R., Jacobelli J., Gismondi A., Piccoli M., Frati L., Santoni A.	Rac1/p38 MAPK signaling pathway controls $\beta 1$ integrin-induced interleukin-8 (IL-8) production in Human NK cells.	Immunity, 12, 7-16, 2000.	21.56
25	Santoni A, Gismondi A., <b>Mainiero F.</b>	Tyrosine kinase Pyk-2 signalling regulates natural killer cell cytotoxicity.	In "The ELSO Gazette", Issue 2 (November, 2000).	----
26	<b>Mainiero F.</b> , Gismondi A., Strippoli R., Soriani A., Jacobelli J., Santoni A.	Integrine e Cellule Natural Killer.	EOS-Journal of Immunology and Immunopharmacology, 20 (3), 63-68, 2000.	----
27	<b>Mainiero F.</b> , Gismondi A., Strippoli R., Jacobelli J., Soriani A., Morrone S., Santoni A.	Integrin-mediated regulation of cytokine and chemokine production by human NK cells.	European Cytokine Network, 11, 493-494, 2000.	1.96
28	Colombatti A., Russo P., Cervi M., Bogetto L., Wassermann B., <b>Mainiero F.</b> , Spessotto P.	Differential expression of IRS-1 and IRS-2 in uterine leiomyosarcomas with distinct oncogenic phenotypes: lack of correlation with downstream signaling events.	Sarcoma, 6, 89-96, 2002.	----
29	Gismondi A., Jacobelli J., Strippoli R., <b>Mainiero F.</b> , Soriani A, Cifaldi L., Piccoli M., Frati L., Santoni A.	Proline-rich tyrosine kinase 2 and Rac activation by chemokine and integrin receptor controls NK transendothelial migration.	J. Immunol., 170, 3065-3073, 2003.	4.92
30	<b>Mainiero F.</b> , Colombara M., Antonini V., Strippoli R., Merola M., Poffe O., Tridente G., Ramarli D.	p38 MAPK is a critical regulator of the constitutive and the beta 4 integrin-regulated expression of IL-6 in human normal thymic epithelial cells.	Eur. J. Immunol., 33, 3038-48, 2003.	4.03
31	Gismondi A., <b>Mainiero F.</b> , Santoni A.	Evaluation of Rho family small G protein activity induced by integrin ligation on human leukocytes.	Methods Mol. Biol., 239, 69-76, 2004.	1.29
32	Frati A., Salvati M., <b>Mainiero F.</b> , Ippoliti F., Rocchi G., Raco A., Caroli E., Cantore G., Delfini R.	Inflammatory markers and risk factors for recurrence in 35 patients with a post-traumatic chronic subdural haematoma: a prospective study.	J. Neurosurg., 100, 24-32, 2004.	3.74

- 33 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., D'Anniballe G., Anacardio R., Cutrin J.C., Cavalieri B., **Mainiero F.**, Strippoli R., Villa P., Di Girolamo M., Martin F., Gentile M., Santoni A., Corda D., Poli G., Mantovani A., Ghezzi P., Colotta F. Noncompetitive allosteric inhibitors of the inflammatory chemokine receptors CXCR1 and CXCR2: prevention of reperfusion injury. *Proc. Natl. Acad. Sci. (U S A.)*, 101, 11791-6, 2004. 9.67
- 34 Di Cioccio V., Strippoli R., Bizzarri C., Troiani G., Cervellera M.N., Gloauguen I., Colagrande A., Cattozzo E.M., Pagliei S., Santoni A., Colotta F., **Mainiero F.**, Bertini R. Key role of proline-rich tyrosine kinase 2 in interleukin-8 (CXCL8/IL-8)-mediated human neutrophil chemotaxis. *Immunology*, 111, 407-415, 2004. 3.80
- 35 Casilli F., Bianchini A., Gloauguen I., Biordi L., Alesse E., Festuccia C., Cavalieri B., Strippoli R., Cervellera MN., Di Bitondo R., Ferretti E., **Mainiero F.**, Bizzarri C., Colotta F., Bertini R. Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2. *Biochem Pharmacol.*, 69, 385-94, 2005. 5.01
- 36 Colombara M., Antonini V., Riviera A. P., **Mainiero F.**, Strippoli R., Merola M., Fracasso G., Poffe O., Brutti N., Tridente G., Colombatti M., Ramarli D. Constitutive activation of p38 and ERK1/2 MAPKs in epithelial cells of myasthenic thymus leads to IL-6 and Rantes over-expression. Effects on survival and migration of peripheral T and B cells. *J. Immunol.*, 175, 7021-8, 2005. 4.92
- 37 Toschi E., Bacigalupo I., Strippoli R., Chiozzini C., Cereseto A., Falchi M., Nappi F., Sgadari C., Barillari G., **Mainiero F.**, Ensoli B. HIV-1 Tat regulates endothelial cell cycle progression via activation of the Ras/ERK MAPK signaling pathway. *Mol. Biol. Cell.*, 2006, 17, 1985-94. 4.47
- 38 Lauro C., Catalano M., Trettel F., **Mainiero F.**, Ciotti M.T., Eusebi F., Limatola C. The chemokine CX3CL1 reduces migration and increases adhesion of neurons with mechanisms dependent on the beta1 integrin subunit. *J. Immunol.*, 177, 7599-606, 2006 4.92
- 39 Colombatti M., Grasso S., Porzia A., Fracasso G., Scupoli M.T., Cingarlani S., Poffe O., Naim H.Y., Heine M., Tridente G., **Mainiero F.**, Ramarli D. The prostate specific membrane antigen regulates the expression of IL-6 and CCL5 in prostate tumour cells by activating the MAPK pathways. *PLoS ONE*, 4(2): e4608, 2009 3.23
- 40 Damiano L., Di Stefano P., Camacho Leal M., Barba M., Mainiero F., Cabodi S., Tordella L., Sapino A., Castellano I., Canel M., Frame M., Turco E., Defilippi P. p140Cap dual regulation of E-cadherin/EGFR cross-talk and Ras signalling in tumour cell scatter and proliferation, *Oncogene*, 2010, 29 (25): 3677-90. 8.46
- 41 Barbato M., Maiella G., Di Camillo C., Guida S., Valitutti F., Lastrucci G., **Mainiero F.**, Cucchiara S. The anti-deamidated gliadin peptide antibodies unmask celiac disease in small children with chronic diarrhea. *Dig Liver Dis.* 2011 (ISSN:1590-8658), 465- 469, 43 2.96
- 42 La Scaleia R., Barba M., Di Nardo G., Bonamico M., Oliva S., Nenna R., Valitutti F., Mennini M., Barbato M., Montuori M., Porzia A., Petrarca L., Cucchiara S., Piccoli M., Santoni A., **Mainiero F.**, Palmieri G. Size and dynamics of mucosal and peripheral IL-17A+ T cell pools in pediatric age, and their disturbance in celiac disease. *Mucosal Immunol.* (ISSN:1933-0219), 2012 Sep;5(5):513-23. doi: 10.1038/mi.2012.26. Epub 2012 May 9. 7.37
- 43 Capozzi A., Vincentini O., Gizzi P., Porzia A., Longo A., Felli C., Mattei V., **Mainiero F.**, Silano M-, Sorice M., Misasi R. Modulatory effect of gliadin peptide 10-mer on epithelial intestinal Caco2 cell inflammatory response. *PLoS ONE*, 8(6): e66561, 2013 3.23

44	Sciaccaluga M., D'Alessandro G., Pagani F., Ferrara G., Lopez N., Warr T., Gorello P., Porzia A., <b>Mainiero F.</b> , Santoro A., Esposito V., Cantore G., Castigli E., Limatola C.	Functional cross talk between CXCR4 and PDGFR on glioblastoma cells is essential for migration.	PLoS One, 8(9):e73426, 2013	3.23
45	Rosito M., Lauro C., Chece G., Porzia A., Monaco L., <b>Mainiero F.</b> , Catalano M., Limatola C., Trettel F.	<u>Transmembrane chemokines CX3CL1 and CXCL16 drive interplay between neurons, microglia and astrocytes to counteract pMCAO and excitotoxic neuronal death.</u>	Front Cell Neurosci. 2014 Jul 10;8:193. doi: 10.3389/fncel.2014.00193. eCollection 2014.	4.29
46	Iannone F., <u>Porzia A., Peruzzi G., Birarelli P., Milana B., Sacco L., Dinatale G., Peparini N., Prezioso G., Battella S., Caronna R., Morrone S., Palmieri G., <b>Mainiero F.</b>, Chirletti P.</u>	Effect of Surgery on Pancreatic Tumor-Dependent Lymphocyte Asset: Modulation of Natural Killer Cell Frequency and Cytotoxic Function.	Pancreas. 2015 Jan 22. [Epub ahead of print]	2.96
47	Garofalo S., D'Alessandro G., Chece G., Brau F., Maggi L., Rosa A., Porzia A., <b>Mainiero F.</b> , Esposito V., Lauro C., Benigni G., Bernardini G., Santoni A., Limatola C.	Enriched environment reduces glioma growth through immune and non-immune mechanisms in mice.	Nat Commun. 2015 Mar 30;6:6623. doi: 10.1038/ncomms7623.	11.47
48	Pagani F., Paolicelli R.C., Murana E., Cortese B., DiAngelantonio S., Zurolo E., Guiducci E., Ferreira T.A., Garofalo S., Catalano M., D'Alessandro G., Porzia A., Peruzzi G., <b>Mainiero F.</b> , Limatola C., Gross C.T., Ragozzino D.	Defective microglial development in the hippocampus of <i>Cx3cr1</i> deficient mice.	Front. Cell. Neurosci., 31 March 2015   doi: 10.3389/fncel.2015.00111	4.29
49	Cox M.C., Battella S., La Scaleia R., Pelliccia S., Di Napoli A., Porzia A., Cecere F., Alma E., Zingoni A., <b>Mainiero F.</b> , Ruco L., Monarca B., Santoni A., Palmieri G.	Tumor-associated and immunochemotherapy-dependent long-term alterations of the peripheral blood NK cell compartment in DLBCL patients	OncoImmunology 4:3, e990773; March 2015	6.27
50	Trovato C.M., Montuori M., Anania C., Barbato M., Vestri A.R., Guida S., Oliva S., <b>Mainiero F.</b> , Cucchiara S., Valitutti F.	Are ESPGHAN "biopsy-sparing" guidelines for celiac disease also suitable for asymptomatic patients?	Am J Gastroenterol. 2015 Oct;110(10):1485-9. doi: 10.1038/ajg.2015.285. Epub 2015 Sep 15.	10.76
51	D'Alessandro G., Grimaldi A., Chece G., Porzia A., Esposito V., Santoro A., Salvati M., <b>Mainiero F.</b> , Catalano M., Wulff H., Limatola C.	KCa3.1 channel inhibition sensitizes malignant gliomas to temozolomide treatment.	Oncotarget, 2016 Apr 16. doi: 10.18632/oncotarget.8761. [Epub ahead of print]	6.36

## Textbooks

1	<b>Mainiero F.</b> and Santoni A. Fibronectin. In "Encyclopedia of Immunology", Accademic Press Ltd, 1998.
2	<b>Mainiero F.</b> , Gismondi A., Strippoli R., Soriani A., Jacobelli J., Santoni A. Integrine e Cellule Natural Killer. In EOS-Journal of Immunology and Immunopharmacology, 20 (3), 63-68, 2000.
3	<b>Mainiero F.</b> Matrici extracellulari. In "Enciclopedia della Scienza e della Tecnica", Treccani, 2007.
4	<b>IMMUNOBIOLOGIA</b> (Janeway, Travers, Walport, Edizione Piccin, 2009). CD italiano a cura di <b>Fabrizio Mainiero</b>
5	<b>IMMUNOLOGIA: Biologia e patologia del sistema immunitario</b> (J.R. Regueiro González, C. López Larrea, S. González Rodríguez, E. Martínez Naves, Edizione Piccin, 2011). Edizione italiana a cura di <b>Fabrizio Mainiero</b> , Gabriella Palmieri, Rossella Paolini
6	<b>BIOMARCATORI DELL'IMMUNITA' UMORALE</b> a cura di Fabrizio Mainiero in Medicina Di Laboratorio-Logica e Patologia Clinica, I. Antonozzi, E. Gulletta, Edizione Piccin, 2012

7-8	<b>INFIAMMAZIONE E RIPARAZIONE TISSUTALE e TEST DI AUTOVALUTAZIONE PER SUPERARE L'ESAME a cura di Fabrizio Mainiero</b> in "IL MANUALE DI PATOLOGIA GENERALE E ANATOMIA PATOLOGICA", Robbins, Kumar & Klatt., Ed Edra, 2015. <b>FISIOPATOLOGIA DELL'APPARATO RIPRODUTTIVO FEMMINILE e DEL RENE E DELLE VIE URINARIE a cura di Fabrizio Mainiero</b> in "FISIOPATOLOGIA ed ELEMENTI DI PATOLOGIA GENERALE di K. L. McCANCE", Edizione Edra, 2016

FIRMATO

**Fabrizio Mainiero**