

# Maria Helena Stabile

## Curriculum Vitae

### Part I – General Information

Full Name	Maria Helena Stabile
Spoken Languages	Italian, English

### Part II – Education

Type	Year	Institution	
University graduation	1998	University of Milan	Degree in Biological Sciences (Summa cum Laude)
Pre-doctorate training	1999-2000	University of Brescia, School of Medicine.	Research fellow at the Department of Molecular and Translational Medicine
Licensure	2001	University of Milan	Licensure in Biology (180/180)
PhD	2005	University of Brescia, School of Medicine	PhD in Cellular and Molecular Biotechnologies (Excellent)
ASN	2018	National academic qualification as associate professor	Abilitazione Scientifica Nazionale Fascia II SC 06/N1 SSD MED/46

### Part III – Appointments

#### IIIA – Accademic Appointments

Start	End	Institution	Position
2011	Present	“La Sapienza” University of Rome	Researcher Assistant Professor

#### IIIB – Other Appointments

Start	End	Institution	Position
2005	2006	“La Sapienza” University of Rome	Postdoc research fellow (Fondazione Cenci Bolognetti, Istituto Pasteur Italia).

2006	2011	“La Sapienza” University of Rome	Research fellow, Department of Experimental Medicine and Pathology, “La Sapienza” University of Rome.
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#### Part IV – Teaching experience

Year	Institution	Lecture/Course
2003/5	University of Brescia, School of Medicine	Course: “Laboratory of Molecular Pathology”, Master Degree in Biotechnology.
2012-present	“La Sapienza” University of Rome	Course of Immunology and Immunopathology (2 CFU) Master Degree in Biotechnology.
2017-present	“La Sapienza” University of Rome	Course of Pathology and Physiopathology, Master Degree in Applied Pharmaceutical Sciences (3 CFU a.a. 2017-18; 2 CFU a.a. 2018-2019).
2011-present	“La Sapienza” University of Rome	Degree and PhD thesis supervisor.

#### Part V – Other Professional Activities

2017-present	Member of “Register of Expert Peer Reviewers for Italian Scientific Evaluation”
2007-present	Ad hoc reviewer for International Journals
2018-present	Member as a tutor of QUID group (Qualità e Innovazione della Didattica) of “La Sapienza” University of Rome.
2018-present	Member of “Commissione Paritetica Docenti Studenti della Facoltà di Farmacia e Medicina” of “La Sapienza” University of Rome.

#### Part V- Society memberships, Awards and Honors

Year	Title
2014-present	SIICA (Italian Society of Immunology, Clinical Immunology and Allergy) membership

#### Part VI – Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program
2004-2008	I in the project: “The control of Embryo Implantation: studies of gene expression, protein profiles/functions at the utero embryonic level: cellular and molecular developmental events at the fetomaternal	Finanziato dalla comunità Europea Project No.: LSHM-CT-2004-512040 (EMBIC network).

	interface”.	
2007-2009	<b>I</b> in the project: “Effector functions of distinct NK cell subsets in tumor microenvironment: molecular mechanisms”.	AIRC code 52267
2010-2012	<b>I</b> in the project: “Study of decidual NK cells to identify tools for new therapeutic strategies to overcome pregnancy failure”.	Ricerca Scientifica FARI, “La Sapienza” University of Rome code. C26I10CNAF
2010-2012	<b>I</b> in the project: “Molecular and biochemical events involved in the control of NK cell migration in tissue compartments”.	Ricerca Scientifica PRIN Cofinanziato dal MIUR, code. 2008B5CN7S_004
2010-2017	<b>I</b> in the project: “Innate Immunity in Cancer (IIC). Molecular targeting and cellular therapy”.	Special Program Molecular Clinical Oncology 5 per mille (AIRC 5xmille), code. 9962
2012-2013	<b>PI</b> in the project: “Human NK cell subset trafficking and effector functions in normal donors and patients with haematological malignancies”.	Ricerca Universitaria “La Sapienza” University of Rome code. C26A12J7JB
2013	<b>I</b> in the project: “Genetically modified animals as disease models: identification of new molecular markers”.	Ricerca Universitaria: acquisizione di grandi attrezzature “La Sapienza” University of Rome code. C26G13R24C
2013-2014	<b>PI</b> in the project: “Phenotypical and functional characterization of human bone marrow and peripheral blood NK cell subsets in normal donors and patients with haematological malignancies”.	Ricerca Universitaria “La Sapienza” University of Rome code. C26A13EA2N
2013-2016	<b>I</b> in the project: “The inflammatory response of the skin to infectious agents and tissue damage: transcriptomic, post-transcriptomic analysis and functional studies at single cell level”.	Ricerca Scientifica PRIN Cofinanziato dal MIUR, code. 2010C2LKKJ_003
2014	<b>I</b> in the project: “Analysis of cellular and molecular mechanisms underlying NK cell hyporesponsiveness induced by therapeutic antibodies: a role for the sustained FcγRIIIA, CD16, aggregation”.	Ricerca Universitaria “La Sapienza” University of Rome code. C26A14AHX3
2015	<b>I</b> in the project: NK cell-mediated immunosurveillance against drug-induced senescent tumor cells.	Ricerca Universitaria “La Sapienza” University of Rome code. C26H15HBMT
2015	<b>I</b> in the project: Analysis of gene expression at the single cell level in the physiopathology of biological systems: Technological platforms.	Ricerca Universitaria: acquisizione di grandi attrezzature “La Sapienza” University of Rome code. C26J15AZS7
2019-2021	<b>I</b> in the project “Cell plasticity of tumor-associated immune infiltrate: Molecular mechanisms and therapeutic options”.	Ricerca Scientifica PRIN Cofinanziato dal MIUR code. 20174T7NXL_003
2018-2025	<b>I</b> in the project: “Metastatic disease: the key unmet need in oncology”.	Special Program Molecular Clinical Oncology 5 per mille (AIRC 5xmille) code. 21147

## Part VII – Research Activities

Keywords

Brief Description

Tumor immunology	Phenotypical and functional characterization of innate lymphoid cells (ILCs) in human patients affected by solid and haematological tumors.
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NK cell biology	Analysis of biochemical events triggered by chemokine receptors in human NK cells. Receptor-triggered signals leading to activation of NK cell migration and functions. Study of the relationship between circulating and tissue resident NK cells, and the role played by specific tissue microenvironments in the modulation of NK cell phenotypic and functional profile.
Tumor Angiogenesis	Purification and characterization of angiogenic factors involved in tumor angiogenesis. Setting of <i>in vivo</i> and <i>in vitro</i> models of angiogenesis.
Enzymology	Functional and structural characterization of enzymes by kinetic and spectroscopic techniques.

### Part VII – Editorial Position

2016-present	Member of the Editorial board for Frontiers in Immunology-Session: Cytokine and Soluble Mediators in Immunity.
2017	Guest Editor: Special issue for AIMS Allergy Immunology on “Novel insight on NK cell receptors and their ligands in health and disease”.
2019	Guest Editor: Special Issue for Journal of Clinical Medicine on "Development and Function of Natural Killer Cells and their Importance in Immunotherapy".

### Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	32	<a href="http://www.ncbi.nlm.nih.gov/pubmed">http://www.ncbi.nlm.nih.gov/pubmed</a>	2000	2019
Books (scientific)	1	“Azospirillum brasilense glutamate synthase: overproduction in Escherichia coli and characterization of recombinant enzyme”. Published in: Flavins and Flavoproteins. Edited by Agency for Scientific Publications Berlin.	1999	
	1	“Computer-assisted analysis of endothelial cell sprouting: an in vitro assay for the screening of anti-angiogenic compounds”. Published in: In Vitro and In Vivo models of Angiogenesis. Edited by Medical School, University of Bari.	2003	
	1	“NK cell and endothelial cell interaction in vitro e in vivo”. <a href="https://www.scopus.com/freelookup/form/author.uri">https://www.scopus.com/freelookup/form/author.uri</a>	2010	
Books (teaching)]	1	“Le basi dell’Immunologia” Abbas A.K., Lichtman A.H., Pillai S. <a href="https://www.edizioniedra.it">https://www.edizioniedra.it</a>	2017	

Total Impact factor	203.025
Total Citations	848
Average Citations per Product	28.2 (papers published in 2019 are not included)
Hirsch (H) index	14
Normalized H index*	0.66

\*H index divided by time span from graduation

Notes:

Journal Impact Factors of the year of publication are indicated.

Scopus or ISI Web of Science was used to calculate citations.

### Part IX –Papers Submitted

**1-Fionda C\***, **Stabile H\***, Molfetta R, Peruzzi G, Zingoni A, Soriani A, Paolini R, Gismondi A, Cippitelli M and Santoni A.

Regulation of NK cell functions by Cereblon. **\*Authors equally contributed** (Submitted).

**2-Macchia I**, La Sorsa V, Ruspantini I, Sanchez M, Tirelli V, Carollo M, Fedele G, Leone P, Schiavoni G, Buccione C, Rizza P, Nisticò P, Palermo B, Morrone S, **Stabile H**, Rughetti A, Nuti M, Zizzari I, Fionda C, Maggio R, Capuano C, Quintarelli C, Sinibaldi M, Agrati C, Casetti R, Roza Gonzalez A, Iacobone F, Belardelli F, Biffoni M, Urbani F.

Multicentre harmonisation of a six-colour flow cytometry panel for naïve/memory T cell immunomonitoring. (under revision)

### Part X -Total Publications

**1- Fionda C\***, **Stabile H\***, Cerboni C, Soriani A, Gismondi A, Cippitelli M, Santoni A. Hitting More Birds with a Stone: Impact of TGF- $\beta$  on ILC Activity in Cancer. J Clin Med. 2020 Jan 5;9(1). pii: E143. doi: 10.3390/jcm9010143. **\*Authors equally contributed**

**IF: 5.688 Citations: 0**

**2- Stabile H**, Nisti P, Fionda C, Pagliara D, Gaspari S, Locatelli F, Santoni A, Gismondi A. NK Cell Reconstitution in Paediatric Leukemic Patients after T-Cell-Depleted HLA-Haploidentical Haematopoietic Stem Cell Transplantation Followed by the Reinfusion of iCasp9-Modified Donor T Cells. J Clin Med. 2019 Nov 7;8(11). pii: E1904. doi: 10.3390/jcm8111904.

**IF: 5.688 Citations: 0**

**3-Fionda C**, Di Bona D, Kosta A, **Stabile H**, Santoni A, Cippitelli M.

The POU-Domain Transcription Factor Oct-6/POU3F1 as a Regulator of Cellular Response to Genotoxic Stress. Cancers (Basel). 2019 Jun 11;11(6). pii: E810. doi: 10.3390/cancers11060810. Published by MDPI AG, Basel, Switzerland.

**IF: 6.162 Citations: 0**

**4- Sciumè G**, Fionda C, **Stabile H**, Gismondi A, Santoni A.

Negative regulation of innate lymphoid cell responses in inflammation and cancer. *Immunol Lett.* 2019 Jan 31. pii: S0165-2478(18)30610-2. doi: 10.1016/j.imlet.2019.01.011. Published by Elsevier  
**IF: 2.552 Citations: 0**

**5-** Carlino C, Rippo MR, Lazzarini R, Monsurrò V, Morrone S, Angelini S, Trotta E, **Stabile H**, Bastianelli C, Albertini MC, Olivieri F, Procopio A, Santoni A, Gismondi A.  
Differential microRNA expression between decidual and peripheral blood natural killer cells in early pregnancy. *Hum Reprod.* 2018 Dec 1;33(12):2184-2195. doi: 10.1093/humrep/dey323. Published by Oxford University Press on behalf of the European Society of Human Reproduction and Embryology.  
**IF: 5.506 Citations: 1**

**6-** Vulpis E\*, **Stabile H\***, Soriani A, Fionda C, Petrucci MT, Mariggio' E, Ricciardi MR, Cippitelli M, Gismondi A, Santoni A, Zingoni A. Key Role of the CD56lowCD16low Natural Killer Cell Subset in the Recognition and Killing of Multiple Myeloma Cells. *Cancers (Basel).* 2018 Nov 29;10(12). pii: E473. doi: 10.3390/cancers10120473. \***Authors equally contributed** Published by MDPI AG, Basel, Switzerland.  
**IF: 6.162 Citations: 2**

**7-** Fionda C, **Stabile H**, Molfetta R, Soriani A, Bernardini G, Zingoni A, Gismondi A, Paolini R, Cippitelli M, Santoni A.  
Translating the anti-myeloma activity of Natural Killer cells into clinical application. *Cancer Treat Rev.* 2018 Nov;70:255-264. doi: 10.1016/j.ctrv.2018.10.005. Epub 2018 Oct 10. Review. Published by Elsevier B.V.  
**IF: 8.332 Citations: 3**

**8-** **Stabile H**, Scarno G, Fionda C, Gismondi A, Santoni A, Gadina M, Sciumè G.  
JAK/STAT signaling in regulation of innate lymphoid cells: The gods before the guardians *Immunol Rev.* 2018 Nov;286(1):148-159. doi: 10.1111/imr.12705. Review. Published by John Wiley & Sons Ltd  
**IF: 11.292 Citations: 2**

**9-** **Stabile H\***, Fionda C, Santoni A, Gismondi A.  
Impact of bone marrow-derived signals on NK cell development and functional maturation. *Cytokine Growth Factor Rev.* 2018 Aug;42:13-19. doi: 10.1016/j.cytogfr.2018.03.008. Epub 2018 Mar 27. Review. \***Corresponding author.** Published by Elsevier Ltd.  
**IF: 5.458 Citations: 5**

**10-** Soriani A, **Stabile H**, Gismondi A, Santoni A, Bernardini G.  
Chemokine regulation of innate lymphoid cell tissue distribution and function. *Cytokine Growth Factor Rev.* 2018 Aug;42:47-55. doi: 10.1016/j.cytogfr.2018.02.003. Epub 2018 Feb 14. Review. Published by Elsevier Ltd.  
**IF: 5.458 Citations: 7**

**11-** Bernardini G, Vulpis E, Bonanni V, **Stabile H**, Ricciardi MR, Petrucci MT, Gismondi A, Santoni A, Zingoni A.  
High expression levels of IP10/CXCL10 are associated with modulation of the natural killer cell compartment in multiple myeloma. *Leuk Lymphoma.* 2017 Oct;58(10):2493-2496. doi: 10.1080/10428194.2017.1295144. Epub 2017 Feb 28. Published by Taylor & Francis group  
**IF: 2.644 Citations: 1**

**12- Stabile H**, Nisti P, Peruzzi G, Fionda C, Pagliara D, Pomonia BL, Merli P, Locatelli F, Santoni A and Gismondi A.

Reconstitution of multifunctional CD56lowCD16low Natural Killer cell subset in children with acute leukemia given  $\alpha/\beta$  T cell-depleted HLA-haploidentical hematopoietic stem cell transplantation. *Oncoimmunology*, 2017. 16; 6 (10) doi: 10.1080/2162402X.2017 Published by Taylor & Francis.

**IF: 5.503 Citations: 1**

**13-** Zitti B, Molfetta R, Fionda C, Quatrini L, **Stabile H**, de Turrís V, Petrucci MT, Ricciardi MR, Cippitelli M, Gismondi A, Angela Santoni A, Paolini R.

Innate immune activating ligand SUMOylation affects tumor cell recognition by NK cells. *Sci Rep*. 2017 Sep 5;7(1):10445. doi: 10.1038/s41598-017-10403-0. Published by Nature group

**IF: 4.122 Citations: 5**

**14-** Del Prete A, Schioppa T, Tiberio L, **Stabile H**, Sozzani S.

Leukocyte trafficking in tumor microenvironment. *Curr Opin Pharmacol*, 2017. 31;35:40-47. doi: 10.1016/j.coph.2017.05.004. Review. Published by Elsevier Ltd.

**IF: 6.313 Citations: 3**

**15- Stabile H\***, Fionda C\*, Gismondi A and Santoni A.

Role of Distinct natural Killer Cell Subsets in Anticancer Response. 2017. *Front Immunol*, 2017. 16;8:293. doi: 10.3389/fimmu.2017.00293. Review. **\*Authors equally contributed**

**IF: 5.511 Citations: 17**

**16-** Bernardini G, Vulpis E, Bonanni V, **Stabile H**, Ricciardi MR, Petrucci MT, Gismondi A, Santoni A, Zingoni A.

High expression levels of IP10/CXCL10 are associated with modulation of the natural killer cell compartment in multiple myeloma. *Leuk Lymphoma*, 2017. 28:1-4. doi: 10.1080/10428194.2017.1295144.

**IF: 2.644 Citations: 1**

**17-** Franzese O, Palermo B, Di Donna C, Sperduti I, Ferraresi V, **Stabile H**, Gismondi A, Santoni A, Nisticò P.

Polyfunctional Melan-A-specific tumor-reactive CD8(+) T cells elicited by dacarbazine treatment before peptide-vaccination depends on AKT activation sustained by ICOS. *Oncoimmunology*, 2016. 1;5(5):e1114203. doi: 10.1080/2162402X.2015.1114203.

**IF: 7.719 Citations: 10**

**18-** Gismondi A, **Stabile H**, Nisti P, Santoni A.

Effector Functions of Natural Killer Cell Subsets in the Control of Hematological Malignancies. *Front Immunol*, 2015. 5;6:567. doi: 10.3389/fimmu.2015.00567. Review.

**IF: 5.695 Citations: 11**

**19- Stabile H**, Nisti P, Pagliara D, Locatelli F, Santoni A, Gismondi A.

Response to comment on Multifunctional human CD56low CD16low NK cells are the prominent subset in bone marrow of both pediatric healthy donors and leukemic patients. *Haematologica*, 2015.100(8):e332-3. doi: 10.3324/haematol.2015.130831.

**IF: 5.695 Citations: 3**

**20-** Galli F, Rapisarda AS, **Stabile H**, Manni I, Bonanno E, Piaggio G. Gismondi A, Santoni A, Signore A.

In vivo imaging of NK cell trafficking in tumors. *J Nucl Med*, 2015. 56(10):1575-80. doi: 10.2967/jnumed.114.152918.

**IF: 5.849 Citations: 10**

**21- Stabile H**, Nisti P, Morrone S, Pagliara D, Bertaina A, Locatelli F, Santoni A, Gismondi A. Multifunctional human CD56<sup>low</sup> CD16<sup>low</sup> natural killer cells are the prominent subset in bone marrow of both pediatric healthy donors and leukemic patients. *Haematologica*, 2015. *Haematologica*. 2015 Apr;100(4):489-98. doi: 10.3324/haematol.2014.116053. Epub 2015 Jan 16. Published by Ferrata Storti Foundation.

**IF: 5.695 Citations: 27**

**22-** Carlino C, Trotta E, **Stabile H**, Morrone S, Bulla R, Soriani A, Iannitto ML, Agostinis C, Mocci C, Minozzi M, Aragona C, Perniola G, Tedesco F, Sozzani S, Santoni A, Gismondi A. Chemerin regulates NK cell accumulation and endothelial cell morphogenesis in the decidua during early pregnancy. *J Clin Endocrinol Metab*, 2012. 97(10):3603-12.

**IF: 6.430 Citations: 34**

**23-** Agostinis C, Bulla R, Tripodo C, Gismondi A, **Stabile H**, Bossi F, Guarnotta C, Garlanda C, De Seta, Spessotto P, Santoni A, Ghebrehiwet B, Ghirardi G, Tedesco F. An alternative Role of C1q in Cell Migration and Tissue Remodeling: Contribution to Trophoblast Invasion and Placental Development. *J Immunol*, 2010. 1;185(7):4420-9. doi: 10.4049/jimmunol.0903215.

**IF: 5.745 Citations: 66**

**24- Stabile H**, Carlino C, Mazza C, Giliani S, Morrone S, Notarangelo L, Notarangelo L.D, Santoni A, Gismondi A.

Impaired NK cell migration in WAS/XLT patients: role of Cdc42/WASp in the control of chemokine-induced  $\alpha 2$  integrin high-affinity state. *Blood*, 2010. 8; 115(14):2818-26.

**IF: 10.558 Citations: 31**

**25-** Mellone M, Rinaldi C, Massimi I, Petroni M, Veschi V, Talora C, Truffa S, **Stabile H.**, Frati L, Screpanti I, Gulino A, Giannini G.

Human Papilloma Virus-Dependent HMGA1 Expression Is a Relevant Step in Cervical Carcinogenesis. *Neoplasia*, 2008. 10(8):773-81.

**IF: 5.191 Citations: 15**

**26-** Santoni A, Carlino C, **Stabile H**, Gismondi A.

Mechanisms underlying the recruitment and accumulation of decidual NK cells in the uterus during pregnancy. *Am J Reprod Immunol*. 2008. 59:417-424.

**IF: 5.191 Citations: 45**

**27-** Carlino C, **Stabile H.**, Morrone S, Bulla R, Soriani A, Agostinis C, Bossi F, Mocci C, Sarzani F, Tedesco F, Santoni A, Gismondi A.

Recruitment of circulating NK cells through decidual tissues: a possible mechanism controlling NK cell accumulation in the uterus during early pregnancy. *Blood* 2008. 15; 111:3108-15.

**IF: 10.432 Citations: 135**

**28- Stabile H**, Mitola S, Moroni E, Belleri M, Nicoli S, Coltrini D, Peri F, Pessi A, Orsatti L, Talamo F, Castronovo V, Waltregny D, Cotelli F, Ribatti D, Presta M.

Bone morphogenic protein antagonist Drm/gremlin is a novel proangiogenic factor. *Blood*. 2007. 1; 109:1834-40.



**IF: 10.896 Citations: 86**

**29-** Presta M, Oreste P, Zoppetti G, Belleri M, Tanghetti E, Leali D, Urbinati C, Bugatti A, Ronca R, Nicoli S, Moroni E, **Stabile H**, Camozzi M, Hernandez GA, Mitola S, Dell'Era P, Rusnati M, Ribatti D.

Antiangiogenic Activity of Semisynthetic Biotechnological Heparins. Low-Molecular-Weight-Sulfated Escherichia coli K5 Polysaccharide Derivatives a Fibroblast Growth Factor Antagonists. Arteriosclerosis Thrombosis and Vascular Biology. 2005; 25:71-76.

**IF: 7.053 Citations: 36**

**30-** Conti P, Roda G, **Stabile H**, Vanoni M.A, Curti B, De Amici M.

Synthesis and biological evaluation of new amino acids structurally related to antitumor agent acivicin. Farmaco, 2003. 58: 683-90.

**IF: No Impact Factor Citations: 14**

**31-** Leali D, Dell'Era P, **Stabile H**, Sennino B, Chambers A.F, Naldini A, Sozzani S, Nico B, Ribatti D, Presta M.

Osteopontin (Eta-1) and Fibroblast Growth Factor-2 Cross-Talk in Angiogenesis. J Immunol, 2003. 15; 171: 1085-93.

**IF: 6.702 Citations: 108**

**32-** Presta M, Leali D, **Stabile H**, Ronca R, Camozzi M, Coco L, Moroni E, Liekens S, Rusnati M. Heparin derivatives as angiogenesis inhibitors Curr. Pharma. Design, 2003. 9: 553-566.

**IF: 5.550 Citations: 103**

**33-** Dell'Era P, Belleri M, **Stabile H**, Massardi M.L, Ribatti D, Presta M.

Paracrine and autocrine effects of fibroblast growth factor-4 in endothelial cells. Oncogene 2001, 10; 2655-2663.

**IF: 6.737 Citations: 47**

**34-** **Stabile, H**, Curti, B, Vanoni M.A.

Functional properties of recombinant *Azospirillum brasilense* glutamate synthase, a complex iron-sulfur flavoprotein. Eur.J. Biochem. 2000, 267:2720-2730.

**IF: 2.852 Citations: 19**

Rome, January 27<sup>th</sup> 2020

*Roberto Stabile*