



## Curriculum Vitae

Personal information **Laura Silvestri**

### Work experience

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<b>2025-present</b>	Deputy Editor, Blood Red Cells and Iron (Blood RCI) journal; American Society of Hematology.
<b>2016-present:</b>	Senior Scientist and Project Leader, San Raffaele Scientific Institute, OSR, Milan, Italy.
<b>2007- present</b>	Adjunct Professor of “Molecular Biology Techniques”, San Raffaele Vita-Salute University, Milan, Italy.
<b>2010-2015</b>	Research Associate, Regulation of Iron Metabolism Unit, San Raffaele Scientific Institute, OSR, Milan, Italy
<b>2010-2011</b>	Visiting Professor (short stages). Department of Pathology, School of Medicine, University of Utah, Salt Lake City, UT, USA
<b>2005-2010</b>	Senior Post-Doc, Regulation of Iron Metabolism Unit, San Raffaele Scientific Institute, OSR, Milan, Italy
<b>2000-2005</b>	Junior Post-Doc, Human Molecular Genetic Unit, S. Raffaele Scientific Institute, OSR, Milan, Italy
<b>1996-2000</b>	Fellow, Division of Biochemistry and Genetics, Carlo Besta Neurological Institute, and Human Molecular Genetic Unit, S. Raffaele Scientific Institute, OSR, Milan, Italy

### Education and training

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**2000-2005:** Postdoctoral training, Molecular mechanisms in neurodegenerative disorders, Ospedale San Raffaele Scientific, Milan, Italy: **2005:** Ms in Science Communication, University of Ferrara, Ferrara, Italy  
**2000:** PhD in Biotechnology, University of Milan, Milan, Italy.  
**1996:** M.Sc. Pharmaceutical Chemistry and Technology, University of Milan, Milan, Italy.

### Additional information

#### Publications

**H index: 39: Citation index: 6989**

#### **Complete List of Published Work in My Bibliography:**

<https://www.scopus.com/authid/detail.uri?authorId=7004424357>

#### **Research articles:**

**1.** Forni GL, Stampono E, Pinto VM, **Silvestri L**, Bencivenga D, Sarnelli S, Di Finizio M, Ricchi P, Quintino S, Salvadori U, Girelli D, Ragione FD, Borriello A. Iron Overload and Anemia in Transferrin Immune Complex Disease, an Overlooked Monoclonal Gammopathy of Clinical Significance. Am J Hematol. 2026 Mar;101(3):586-591. doi: 10.1002/ajh.70187.

**2.** Pettinato M, Furiosi V, Carleo R, Bavuso Volpe L, Guo S, Mannella V, Musco G, Gilberti E, De Palma G, Federico G, Carlomagno F, Cherubini A, Pelusi S, Dano A, Nai A, Valenti L, Altamura S, Pagani A, **Silvestri L**. Targeting the Liver Serine Protease TMPRSS6 Ameliorates Steatosis and Attenuates Fibrosis in Experimental MASLD. Liver Int. 2025

- 3.** Dogan DY, Hornung I, Pettinato M, Pagani A, Baschant U, Seeböhm G, Hofbauer LC, **Silvestri L**, Rauner M, Steinbicker AU. Bone phenotyping of murine hemochromatosis models with deficiencies of HJV, ALK2, or ALK3: The influence of sex and the bone compartment. *FASEB J*. 2024 Nov 30;38(22):e70179. doi: 10.1096/fj.202401015R.
- 4.** Tanzi, E., Di Modica, S.M., Bordini, J., Olivari, V., Pagani, A., Furioli, V., **Silvestri, L.**, Campanella, A., Nai, A. Bone marrow Tfr2 deletion improves the therapeutic efficacy of the activin-receptor ligand trap RAP-536 in  $\beta$ -thalassemic mice (2024) *American Journal of Hematology*, 99 (7), pp. 1313-1325. DOI: 10.1002/ajh.27336.
- 5.** Pettinato, M., Aghajan, M., Guo, S., Volpe, L.B., Carleo, R., Nai, A., Pagani, A., Altamura, S., **Silvestri, L.** A functional interplay between the two BMP-SMAD pathway inhibitors TMPRSS6 and FKBP12 regulates hepcidin expression in vivo (2024) *American Journal of Physiology - Gastrointestinal and Liver Physiology*, 326 (3), pp. G310-G317. DOI: 10.1152/ajpgi.00305.2023.
- 6.** Mina, E., Wyart, E., Sartori, R., Angelino, E., Zaggia, I., Rausch, V., Maldotti, M., Pagani, A., Hsu, M.Y., Friziero, A., Sperti, C., Menga, A., Graziani, A., Hirsch, E., Oliviero, S., Sandri, M., Conti, L., Kautz, L., **Silvestri, L.**, Porporato, P.E. FK506 bypasses the effect of erythropoietin in cancer cachexia skeletal muscle atrophy (2023) *Cell Reports Medicine*, 4 (12), art. no. 101306. DOI: 10.1016/j.xcrm.2023.101306
- 7.** Pettinato, M., Dulja, A., Colucci, S., Furioli, V., Fette, F., Steinbicker, A.U., Muckenthaler, M.U., Nai, A., Pagani, A., **Silvestri, L.** FKBP12 inhibits hepcidin expression by modulating BMP receptors interaction and ligand responsiveness in hepatocytes (2023) *American Journal of Hematology*, 98 (8), pp. 1223-1235. DOI: 10.1002/ajh.26961
- 8.** Olivari, V., Di Modica, S.M., Lidonnici, M.R., Aghajan, M., Cordero-Sanchez, C., Tanzi, E., Pettinato, M., Pagani, A., Tiboni, F., **Silvestri, L.**, Guo, S., Ferrari, G., Nai, A. A single approach to targeting transferrin receptor 2 corrects iron and erythropoietic defects in murine models of anemia of inflammation and chronic kidney disease (2023) *Kidney International*, 104 (1), pp. 61-73. DOI: 10.1016/j.kint.2023.03.012
- 9.** Stetka, J., Usart, M., Kubovcakova, L., Rai, S., Rao, T.N., Sutter, J., Hao-Shen, H., Dirnhofer, S., Geier, F., Bader, M.S., Passweg, J.R., Manolova, V., Dürrenberger, F., Ahmed, N., Schroeder, T., Ganz, T., Nemeth, E., **Silvestri, L.**, Nai, A., Camaschella, C., Skoda, R.C. Iron is a modifier of the phenotypes of JAK2-mutant myeloproliferative neoplasms (2023) *Blood*, 141 (17), pp. 2127-2140. DOI: 10.1182/blood.2022017976
- 10.** Di Modica, S.M., Tanzi, E., Olivari, V., Lidonnici, M.R., Pettinato, M., Pagani, A., Tiboni, F., Furioli, V., **Silvestri, L.**, Ferrari, G., Rivella, S., Nai, A. Transferrin receptor 2 (Tfr2) genetic deletion makes transfusion-independent a murine model of transfusion-dependent  $\beta$ -thalassemia. (2022) *American Journal of Hematology*, 97 (10), pp. 1324-1336. DOI: 10.1002/ajh.26673.
- 11.** Lorè, N.I., De Lorenzo, R., Rancoita, P.M.V., Cugnata, F., Agresti, A., Benedetti, F., Bianchi, M.E., Bonini, C., Capobianco, A., Conte, C., Corti, A., Furlan, R., Mantegani, P., Maugeri, N., Sciorati, C., Saliu, F., **Silvestri, L.**, Tresoldi, C., Farina, N., De Filippo, L., Battista, M., Grosso, D., Gorgoni, F., Di Biase, C., Moretti, A.G., Granata, L., Bonaldi, F., Bettinelli, G., Delmastro, E., Salvato, D., Magni, G., Avino, M., Betti, P., Bucci, R., Dumoa, I., Bossolasco, S., Morselli, F., Ciceri, F., Rovere-Querini, P., Di Serio, C., Cirillo, D.M., Manfredi, A.A. CXCL10 levels at hospital admission predict COVID-19 outcome: hierarchical assessment of 53 putative inflammatory biomarkers in an observational study (2021) *Molecular Medicine*, 27 (1), art. no. 129. DOI: 10.1186/s10020-021-00390-4
- 12.** Pagani A, Pettinato M, Colucci S, Dulja A, Rauner M, Nai A, Camaschella C, Altamura S, Muckenthaler MU, **Silvestri L.** Hemochromatosis proteins are dispensable for the acute hepcidin response to BMP2. *Haematologica*. 2020 Oct 1;105(10):e493. doi: 10.3324/haematol.2019.241984.
- 13.** Nai, A., Lidonnici, M.R., Federico, G., Pettinato, M., Olivari, V., Carrillo, F., Crich, S.G., Ferrari, G., Camaschella, C., **Silvestri, L.**, Carlomagno, F. NCOA4-mediated ferritinophagy in macrophages is crucial to sustain erythropoiesis in mice (2021) *Haematologica*, 106 (3), pp. 795-805. DOI: 10.3324/haematol.2019.241232
- 14.** Nai, A., Lorè, N.I., Pagani, A., De Lorenzo, R., Di Modica, S., Saliu, F., Cirillo, D.M., Rovere-Querini, P., Manfredi, A.A., **Silvestri, L.** Hepcidin levels predict Covid-19 severity and mortality in a cohort of hospitalized Italian patients (2021) *American Journal of Hematology*, 96 (1), pp. E32-E35. DOI: 10.1002/ajh.26027
- 15.** Pagani, A., Pettinato, M., Colucci, S., Dulja, A., Rauner, M., Nai, A., Camaschella, C., Altamura, S., Muckenthaler, M.U., **Silvestri, L.** Hemochromatosis proteins are dispensable for the acute hepcidin response to BMP2 (2020) *Haematologica*, 105 (10), pp. E493-E496. DOI: 10.3324/haematol.2019.241984
- 16.** Nai A., Pettinato M. Federico G., Carlomagno F. and **Silvestri L.** Tamoxifen erythroid toxicity revealed by studying the role of Nuclear Receptor Co-Activator 4 in erythropoiesis. *Haematologica*. (2019). *Haematologica*. 2019 Aug;104(8):e383-e384. doi: 10.3324/haematol.2019.224857.
- 17.** Crippa S, Rossella V, Aprile A, **Silvestri L**, Ravis S, Scaramuzza S, Pirroni S, Avanzini MA, Basso-Ricci L, Hernandez RJ, Zecca M, Marktel S, Ciceri F, Aiuti A, Ferrari G, Bernardo ME. Bone marrow stromal cells from  $\beta$ -thalassemia patients have impaired hematopoietic supportive capacity. *J Clin Invest*. 2019 Feb 25;129(4):1566-1580. doi: 10.1172/JCI123191.
- 18.** Artuso I, Pettinato M, Nai A, Pagani A, Sardo U, Billoré B, Lidonnici MR, Bennett C, Mandelli G, Pasricha SR, Ferrari G, Camaschella C, Kautz L, **Silvestri L.** Transient decrease of serum iron after acute erythropoietin treatment contributes to hepcidin inhibition by ERFE in mice. *Haematologica*. 2018 Sep 28. pii: haematol.2018.199810. doi: 10.3324/haematol.2018.199810.
- 19.** Artuso I, Lidonnici MR, Altamura S, Mandelli G, Pettinato M, Muckenthaler MU, **Silvestri L**, Ferrari G, Camaschella C, Nai A. Transferrin receptor 2 is a potential novel therapeutic target for  $\beta$ -thalassemia: evidence from a murine model. *Blood*. 2018 Nov 22;132(21):2286-2297. doi: 10.1182/blood-2018-05-852277.
- Highlighted in Blood.** Highlighted in: Ginzburg YZ. and Fleming RE. Tfr2 suppression benefits beta-thalassemic erythropoiesis. *Blood*. 132(21):2215-16 (2018)
- 20.** Ravasi G, Pelucchi S, Mariani R, **Silvestri L**, Camaschella C, Piperno A. A severe hemojuvelin mutation leading to late onset of HFE2-hemochromatosis. *Dig Liver Dis*. 2018 Apr 27. pii: S1590-8658(18)30715-1. doi: 10.1016/j.dld.2018.04.018.
- 21.** Colucci S., Pagani A., Pettinato M., Artuso I., Nai A., Camaschella C., **Silvestri L.** The immunophilin FKBP12 inhibits hepcidin expression by binding the BMP type I receptor ALK2 in hepatocytes. (2017) *Blood*. 2017 doi: 10.1182/blood-2017-04-780692.
- Highlighted in Blood.** Parrow NL, Fleming RE. Releasing the FKBP12 brake on hepcidin. *Blood*. 2017 Nov 9;130(19):2049-2050. doi: 10.1182/blood-2017-09-805390.
- 22.** Pagani, A., Colucci, S., Bocciardi, R., Bertamino, M., Dufour, C., Ravazzolo, R., **Silvestri, L.\***, Camaschella, C\*. A new form of IRIDA due to combined heterozygous mutations of TMPRSS6 and ACVR1A encoding the BMP receptor ALK2 (2017) *Blood*, 129 (25), pp. 3392-3395. DOI: 10.1182/blood-2017-03-773481. \* **co-last authors**
- 23.** Latour, C., Besson-Fournier, C., Meynard, D., **Silvestri, L.**, Gourbeyre, O., Aguilar-Martinez, P., Schmidt, P.J.,

Fleming, M.D., Roth, M.-P., Coppin, H. Differing impact of the deletion of hemochromatosis-associated molecules HFE and transferrin receptor-2 on the iron phenotype of mice lacking bone morphogenetic protein 6 or hemojuvelin (2016) *Hepatology*, 63 (1), pp. 126-137. DOI: 10.1002/hep.28254.

24. Nai, A., Rubio, A., Campanella, A., Gourbeyre, O., Artuso, I., Bordini, J., Gineste, A., Latour, C., Besson-Fournier, C., Lin, H.Y., Coppin, H., Roth, M.-P., Camaschella, C., **Silvestri, L.\***, Meynard, D\*. Limiting hepatic Bmp-Smad signaling by matrilysin-2 is required for erythropoietin-mediated hepcidin suppression in mice (2016) *Blood*, 127 (19), pp. 2327-2336. \*: **co-last and co-corresponding authors**

**Highlighted in Blood.** Bartnikas T. Matrilysin-2 links erythropoietin to iron. *Blood* 2016 127:2270-2271.

25. Rausa, M., Pagani, A., Nai, A., Campanella, A., Gilberti, M.E., Apostoli, P., Camaschella, C., **Silvestri, L.** Bmp6 expression in murine liver non parenchymal cells: A mechanism to control their high iron exporter activity and protect hepatocytes from iron overload? (2015) *PLoS ONE*, 10 (4), art. no. e0122696, . DOI: 10.1371/journal.pone.0122696.

26. Nai, A., Lidonnici, M.R., Rausa, M., Mandelli, G., Pagani, A., **Silvestri, L.**, Ferrari, G., Camaschella, C. The second transferrin receptor regulates red blood cell production in mice (2015) *Blood*, 125 (7), pp. 1170-1179. DOI: 10.1182/blood-2014-08-596254.

**Highlighted in Blood.** Pantopoulos K. TFR2 links iron metabolism and erythropoiesis. *Blood* 125:1055-6.

27. Rausa, M., Ghitti, M., Pagani, A., Nai, A., Campanella, A., Musco, G., Camaschella, C., **Silvestri, L.** Identification of TMPRSS6 cleavage sites of hemojuvelin (2015) *Journal of Cellular and Molecular Medicine*, 19 (4), pp. 879-888. DOI: 10.1111/jcmm.12462.

28. Pagani, A., Vieillevoys, M., Nai, A., Rausa, M., Ladli, M., Lacombe, C., Mayeux, P., Verdier, F., Camaschella, C., **Silvestri, L.** Regulation of cell surface transferrin receptor-2 by iron-dependent cleavage and release of a soluble form (2015) *Haematologica*, 100 (4), pp. 458-465. DOI: 10.3324/haematol.2014.118521.

29. Ravasi, G., Rausa, M., Pelucchi, S., Arosio, C., Greni, F., Mariani, R., Pelloni, I., **Silvestri, L.**, Pineda, P., Camaschella, C., Piperno, A. Transferrin receptor 2 mutations in patients with juvenile hemochromatosis phenotype (2015) *American Journal of Hematology*, 90 (12), pp. E226-E227. DOI: 10.1002/ajh.24202.

30. Nai, A., Pellegrino, R.M., Rausa, M., Pagani, A., Boero, M., **Silvestri, L.**, Saglio, G., Roetto, A., Camaschella, C. The erythroid function of transferrin receptor 2 revealed by Tmprss6 inactivation in different models of transferrin receptor 2 knockout mice (2014) *Haematologica*, 99 (6), pp. 1016-1021. DOI: 10.3324/haematol.2013.103143.

31. Ravasi, G., Pelucchi, S., Greni, F., Mariani, R., Giuliano, A., Parati, G., **Silvestri, L.**, Piperno, A. Circulating factors are involved in hypoxia-induced hepcidin suppression (2014) *Blood Cells, Molecules, and Diseases*, 53 (4), pp. 204-210. DOI: 10.1016/j.bcmd.2014.06.006.

32. de Falco, L.\*, **Silvestri, L.\***, Kannengiesser, C., Morán, E., Oudin, C., Rausa, M., Bruno, M., Aranda, J., Argiles, B., Yenicesu, I., Falcon-Rodriguez, M., Yilmaz-Keskin, E., Kocak, U., Beaumont, C., Camaschella, C., Iolascon, A., Grandchamp, B., Sanchez, M. Functional and clinical impact of novel Tmprss6 variants in iron-refractory iron-deficiency Anemia patients and genotype-phenotype studies (2014) *Human Mutation*, 35 (11), pp. 1321-1329. DOI: 10.1002/humu.22632. \*: **co-first authors**

33. Riba, M., Rausa, M., Sorosina, M., Cittaro, D., Garcia Manteiga, J.M., Nai, A., Pagani, A., Martinelli-Boneschi, F., Stupka, E., Camaschella, C., **Silvestri, L.** A Strong Anti-Inflammatory Signature Revealed by Liver Transcription Profiling of Tmprss6<sup>-/-</sup> Mice (2013) *PLoS ONE*, 8 (7), art. no. e69694, . DOI: 10.1371/journal.pone.0069694.

34. Campostrini N, Traglia M, Martinelli N, Corbella M, Cocca M, Manna D, Castagna A, Masciullo C, **Silvestri L**, Olivieri O, Toniolo D, Camaschella C, Girelli D. Serum levels of the hepcidin-20 isoform in a large general population: The Val Borbera study. *J Proteomics*. 2012 Dec 5;76 Spec No.:28-35.

35. Nai A, Pagani A, Mandelli G, Lidonnici MR, **Silvestri L**, Ferrari G, Camaschella C. Deletion of Tmprss6 attenuates the phenotype in a mouse model of  $\beta$ -thalassemia. *Blood* 119(21):5021-9 (2012).

36. Nai A, Pagani A, **Silvestri L**, Campostrini N, Corbella M, Girelli D, Traglia M, Toniolo D, Camaschella C. TMPRSS6 rs855791 modulates hepcidin transcription in vitro and serum hepcidin levels in normal individuals. *Blood* 118(16):4459-62 (2011).

37. Pagani A, Nai A, Corna G, Bosurgi L, Rovere-Querini P, Camaschella C, **Silvestri L**. Low hepcidin accounts for the proinflammatory status associated with iron deficiency. *Blood* 118(3):736-46 (2011).

38. Poli M, Lusciati S, Gandini V, Maccarinelli F, Finazzi D, **Silvestri L**, Roetto A, Arosio P. Transferrin receptor 2 and HFE regulate furin expression via mitogen-activated protein kinase/extracellular signal-regulated kinase (MAPK/Erk) signaling. Implications for transferrin-dependent hepcidin regulation. *Haematologica* 95(11):1832-40 (2010).

39. Nai A., Pagani A., **Silvestri L.** and Camaschella C. Increased susceptibility to iron deficiency of Tmprss6-haploinsufficient mice. *Blood* 116(5):851-2 (2010).

40. Corna G., Campana L., Pignatti E., Castiglioni A., Tagliafico E., Bosurgi L., Campanella A., Brunelli S., Manfredi A., Apostoli P., **Silvestri L.**, Camaschella C., Rovere-Querini P. Polarization dictates iron handling by inflammatory and alternatively activated macrophages. *Haematologica* 95(11):1814-22 (2010).

41. Ye H., Jeong S., Ghosh M., Kovtunovych G., **Silvestri L.**, Ortillo D., Uchida N., Tisdale J., Camaschella C. and Rouault T. Glutaredoxin 5 deficiency causes sideroblastic anemia by specifically impairing heme biosynthesis and depleting cytosolic iron in erythroblasts. *J Clin Invest*, 120 (5):1749-61 (2010).

42. De Falco L, Totaro F, Nai A, Pagani A, Girelli D, **Silvestri L**, Piscopo C, Campostrini N, Dufour C, Manjomi FA, Minkov M, Van Vuurden DG, Feliu A, Kattamis A, Camaschella C, Iolascon A.: Novel TMPRSS6 mutations associated with iron-refractory iron deficiency anemia (IRIDA). *Hum Mutation* 31(5):E1390-405 (2010).

43. **Silvestri L.**, Guillem F., Pagani A., Nai A., Oudin C., Silva M., Toutain F., Kannengiesser C., Beaumont C., Camaschella C. and Grandchamp B.: Molecular mechanisms of the defective hepcidin inhibition in TMPRSS6 mutations associated with iron-refractory iron deficiency anemia. *Blood*, 113(22):5605-8 (2009).

44. **Silvestri L.**, Pagani A., Nai A., De Domenico I., Kaplan J. and Camaschella C.: The serine protease matrilysin-2 (TMPRSS6) inhibits hepcidin activation by cleaving membrane hemojuvelin. *Cell Metabolism*, 8 (6): 502-11 (2008).

45. Pagani A, **Silvestri L.**, Nai A., Camaschella C. Hemojuvelin N-terminal mutants reach the plasma membrane but do not activate the hepcidin response. *Haematologica*, 93 (10): 1466-1472 (2008).

46. **Silvestri L.**, Pagani A, Camaschella C. Furin mediated release of soluble Hemojuvelin: a new link between hypoxia and iron homeostasis. *Blood*, 111 (2): 924-0931 (2008).

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- 48. Silvestri L.**, Pagani A., Fazi C., Gerardi G., Levi S., Arosio P. and Camaschella C. Defective targeting of Hemojuvelin to plasma membrane is a common pathogenetic mechanism in Juvenile Hemochromatosis. *Blood*, 109 (10): 4503-4510 (2007).
- 49.** Sessa L., Breiling A., Lavorgna G., **Silvestri L.**, Casari G, and Orlando V. Noncoding RNA synthesis and loss of Polycomb group repression accompanies the collinear activation of the human HOXA cluster. *RNA*, 13 (2): 223-239 (2007).
- 50. Silvestri L.\***, Caputo V.\*, Bellacchio E., Atorino L., Dallapiccola B., Valente E.M., and Casari G. Mitochondrial import and enzymatic activity of PINK1 mutants associated to autosomal recessive parkinsonism. *Hum Mol Genet*, 14(22): 3477-3492 (2005). \*: **Joint first Author.**
- 51. Atorino L.\*, Silvestri L.\***, Koppen M., Cassina L., Ballabio A., Marconi R., Langer T. and Casari G.: Loss of m-AAA protease in mitochondria causes complex I deficiency and increased sensitivity to oxidative stress in Hereditary Spastic Paraplegia. *J Cell Biology*, 163(4): 777-787 (2003). \*: **joint first Author.**
- 52.** Rossi L., Leverì M., Gritti C., De Silvestri A., Zavaglia C., Sonzogni L., **Silvestri L.**, Civardi E., Mondelli M.U., and Silini E.M. Genetic polymorphisms of steroid hormone metabolizing enzymes and risk of liver disease progression and cancer in hepatitis C infected patients. *J Hepatology*, 39(4): 564-70 (2003).
- 53. Silvestri L.**, Sonzogni L., De Silvestri A., Gritti C., Foti L., Zavaglia C., Leverì M., Cividini A., Mondelli M.U., Civardi E. and Silini E.M.: CYP enzyme polymorphisms and susceptibility to HCV-related chronic liver disease and liver cancer. *Int J Cancer*, 104 (3): 310-317 (2003).
- 54.** De Fusco M., Marconi R., **Silvestri L.**, Atorino L., Rampoldi L., Morgante L., Ballabio A., Aridon P. and Casari G.: Haploinsufficiency of ATP1A2 encoding the Na<sup>+</sup>/K<sup>+</sup> pump 2 subunit associated with familial hemiplegic migraine type 2. *Nat Genetics*, 33 (2): 192-196 (2003).
- 55.** Lamantea E., Tiranti V., Bordoni A., Toscano A., Bono F., Servirei S., Papadimitriou A., Spelbrink H., **Silvestri L.**, Casari G., Comi G. and Zeviani M.: Mutations of mitochondrial DNA polymerase  $\gamma$  in families with autosomal dominant or recessive Progressive External Ophthalmoplegia. *Annals Neurol*, 52 (2): 211-219 (2002).
- 56. Sonzogni L.\*, Silvestri L.\***, De Silvestri A., Gritti C., Foti L., Zagaglia C., Bottelli R., Modelli M.U., Civardi E. and Silini E.M.: Polymorphisms of microsomal epoxide hydrolase (mEH) gene and severity of hepatitis C virus (HCV)-related liver disease. *Hepatology*, 36:195-201 (2002). \*: **joint first Author.**

#### **Reviews-Editorials:**

- 1. Silvestri L.** When TNF $\alpha$  is out, IFN- $\gamma$  drives anemia of inflammation. *Blood*. 2025 Aug 21;146(8):908-910. doi: 10.1182/blood.2025030006. PMID: 40839259.
- 2. Silvestri, L.** Ironing erythroid cells takes FLG1 and ERFE to tango. (2024) *Blood*, 143 (13), pp. 1208-1209. DOI: 10.1182/blood.2023023645
- 3. Nai, A., Cordero-Sanchez, C., Tanzi, E., Pagani, A., Silvestri, L., Di Modica, S.M.** Cellular and animal models for the investigation of  $\beta$ -thalassemia (2024) *Blood Cells, Molecules, and Diseases*, 104, art. no. 102761. DOI: 10.1016/j.bcmd.2023.102761
- 4. Vinchi, F., Asperti, M., Marques, O., Nai, A., Silvestri, L.** Flavor of Iron at EHA2023: Novel Regulatory Mechanisms and Therapeutic Options for the Correction of Anemia (2023) *HemaSphere*, 7 (10), p. E955. DOI: 10.1097/HS9.0000000000000955
- 5. Valenti, L., Corradini, E., Adams, L.A., Aigner, E., Alqahtani, S., Arrese, M., Bardou-Jacquet, E., Bugianesi, E., Fernandez-Real, J.-M., Girelli, D., Hagström, H., Henninger, B., Kowdley, K., Ligabue, G., McClain, D., Lainé, F., Miyanishi, K., Muckenthaler, M.U., Pagani, A., Pedrotti, P., Pietrangelo, A., Prati, D., Ryan, J.D., **Silvestri, L.**, Spearman, C.W., Stål, P., Tsochatzidis, E.A., Vinchi, F., Zheng, M.-H., Zoller, H.** Consensus Statement on the definition and classification of metabolic hyperferritinaemia (2023) *Nature Reviews Endocrinology*, 19 (5), pp. 299-310.
- 6. Silvestri, L., Pettinato, M., Furioli, V., Bavuso Volpe, L., Nai, A., Pagani, A.** Managing the Dual Nature of Iron to Preserve Health (2023) *International Journal of Molecular Sciences*, 24 (4), art. no. 3995. DOI: 10.3390/ijms24043995
- 7. Camaschella, C., Pagani, A., Silvestri, L., Nai, A.** The mutual crosstalk between iron and erythropoiesis (2022) *International Journal of Hematology*, 116 (2), pp. 182-191. DOI: 10.1007/s12185-022-03384-y
- 8. Silvestri, L., Magnusson, M.K.** Iron biology: the balance matters (2021) *Seminars in Hematology*, 58 (3), p. 131. DOI: 10.1053/j.seminhematol.2021.07.002
- 9. Silvestri, L., Nai, A.** Iron and erythropoiesis: A mutual alliance (2021) *Seminars in Hematology*, 58 (3), pp. 145-152. Cited 5 times. DOI: 10.1053/j.seminhematol.2021.05.002
- 10. Mleczko-Sanecka, K., Silvestri, L.** Cell-type-specific insights into iron regulatory processes (2021) *American Journal of Hematology*, 96 (1), pp. 110-127. DOI: 10.1002/ajh.26001
- 11. Camaschella, C., Nai, A., Silvestri, L.** Iron metabolism and iron disorders revisited in the hepcidin era (2020) *Haematologica*, 105 (2), pp. 260-272. DOI: 10.3324/haematol.2019.232124
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- 13. Silvestri L, Nai A, Dulja A, Pagani A.** Hepcidin and the BMP-SMAD pathway: An unexpected liaison. *Vitam Horm*. 2019;110:71-99. doi: 10.1016/bs.vh.2019.01.004.
- 14. Silvestri, L.** The Iron Tale: If It Does Not Kill You, It Makes You Stronger (and Hepcidin Helps). *HemaSphere*. 2018 Jan. MEDLINE: 31723756. Editorial.
- 15. Camaschella C., Pagani A., Nai A., Silvestri L.** The mutual control of iron and erythropoiesis. *International Journal of Laboratory Hematology*, May 38 Suppl 1:20-6. 2016. Review.
- 16. Pagani, A., Ladli, M., Nai, A., Verdier, F., Camaschella, C., Silvestri, L.** Comment on: PACE4 (PCSK6): Another proprotein convertase linked to iron homeostasis? (2015) *Haematologica*, 100 (9), p. e380. DOI: 10.3324/haematol.2015.128348. Comment.
- 17. Silvestri L.\***, Nai A., Pagani A. and Camaschella C.\* The extrahepatic role of TFR2 in iron homeostasis. *Frontiers in Pharmacology Research Topics* 2014, May 7;5:93. Review. \* **Corresponding Author.**
- 18. Silvestri, L., Rausa, M., Pagani, A., Nai, A., Camaschella, C.** How to Assess Causality of TMPRSS6 Mutations? (2013) *Human Mutation*, 34 (7), pp. 1043-1045. DOI: 10.1002/humu.22321. Letter.
- 19. Silvestri, L.** Inhibiting the hepcidin inhibitor for treatment of iron overload (2013) *Blood*, 121 (7), pp. 1068-

1069. DOI: 10.1182/blood-2012-12-472597. Commentary.

**20.** De Falco L, Sanchez M, **Silvestri L**, Kannengiesser C, Muckenthaler MU, Iolascon A, Gouya L, Camaschella C, Beaumont C. Iron refractory iron deficiency anemia. *Haematologica*. 2013 Jun;98(6):845-53. Review.

**21.** Camaschella C, **Silvestri L**. Molecular mechanisms regulating hepcidin revealed by hepcidin disorders. *ScientificWorldJournal* 11:1357-66 (2011). Review.

**22.** **Silvestri L** and Camaschella C. A potential pathogenetic role of iron in Alzheimer's Disease. Medical Hypothesis. *J Cell Mol Med*, 12 (5A): 1548-1550 (2008). Medical hypothesis.

**23.** Camaschella C. and **Silvestri L.**: New and old players in the hepcidin pathway. *Haematologica*, 93 (10): 1441-1444 (2008). Review.

#### **Book chapters:**

**1.** Nai A, **Silvestri L**, Asperti M, Vinchi F. (2025) Current Landscape of Hepcidin Therapeutics. Adv Exp Med Biol. 1480:399-418. doi: 10.1007/978-3-031-92033-2\_26.

**2.** **Silvestri, L.** Iron Metabolism in Aging. (2016) Molecular Basis of Nutrition and Aging: A Volume in the Molecular Nutrition Series, pp. 523-536. DOI: 10.1016/B978-0-12-801816-3.00037-6

**3.** Camaschella C, **Silvestri L.** Hepcidin regulation of iron homeostasis. Metals in cells. Book chapter. John Wiley & Sons, Ltd (2013).

#### **Projects**

Laura Silvestri's research investigates the molecular and cellular pathways that regulate iron metabolism in both physiological and pathological contexts. Her work focuses on elucidating the mechanisms of hepcidin regulation in disorders such as Hereditary Hemochromatosis, Iron-Refractory Iron Deficiency Anemia (IRIDA), and beta-thalassemia. In particular, she studies the signaling pathways controlling hepcidin expression in hepatocytes and the inter-organ crosstalk involved in systemic iron homeostasis. Her work further includes the functional characterization of bone marrow-derived transferrin receptor 2 (TFR2) and its role in controlling erythropoiesis in normal and disease states, such as various forms of anemia.

Her research has significantly advanced the understanding of how disruptions in iron balance contribute to hematological and systemic diseases, with a special emphasis on the interplay between iron regulation and erythropoiesis. By clarifying the role of hepcidin and its regulatory pathways, her work has opened new avenues for therapeutic strategies targeting anemia, iron overload, and iron-restricted conditions.

#### **Memberships**

##### **Editorial activities:**

Deputy Editor, Blood Red Cells and Iron (American Society of Hematology)

##### **Memberships:**

International Biolron Society (IBIS); European Iron Club (EIC); American Society of Hematology (ASH); European Hematology Association (EHA).

##### **Active Member of:**

**2015-2019** Member of the Board of Directors, International Society for the Study of Iron in Biology and Medicine Meeting (Biolron)

**2018-2020** Member of the Scientific Program Committee-Advisory Board (SPC-AB) "Red cells and iron", European Hematology Association (EHA)

**2019-2021** Member of the Scientific Committee on Iron and Heme, American Society of Hematology (ASH)

**2021-2022** Vice Chair of the Scientific Committee on Iron and Heme, American Society of Hematology (ASH)

**2022-2023** Chair of the Scientific Committee on Iron and Heme, American Society of Hematology (ASH)

**2023** Member of the European Hematology Association (EHA)-Scientific Working Group (SWG) on Red Cell and Iron metabolism

##### **Invited Lectures**

European Hematology Association (EHA) Stockholm 2026. "Mechanisms of iron regulation in health and disease"

EHA-SAH Hematology Tutorial, Mar del Plata, Argentina 2025. "Disorders of iron metabolism".

Congress of the International Biolron Society Montreal 2025. "Iron in

metabolic disorders”.

EHA-SWG meeting, Madrid, Spain 2024. “Updates on New Drugs modulating Iron Metabolism”

EHA-SWG Scientific Meeting on Red Cell and Iron Metabolism Defects: From Basic Science to Clinical Case Application, Budapest, Oct 2023. “Iron and Erythropoiesis”.

Congress of the International Biolron Society (IBIS) Darwin 2023. “Iron Loading Anemias”.

European Iron Club (EIC) Oxford 2022. “Iron, erythropoiesis and the iron loading anemias”.

International Conference on Trace Elements and Minerals (ICTEM), Aachen, Germany 2022. “Managing the dual role of iron to preserve health: from basic mechanisms to therapeutic approaches”.

European Hematology Association (EHA), Frankfurt, Germany 2020. “Role of hepcidin in erythropoiesis and anemia”.

European Hematology Association (EHA), Frankfurt, Germany 2020. “New drugs modulating iron metabolism”.

International Academy for Clinical Hematology (IACH) Annual Meeting, Paris, France 2019. Titolo: “Hepcidin, the “iron hormone”: update on its regulation”.

Congress of the International Biolron Society, Heidelberg, Germany 2019. “Genetic diseases causing iron deficiency and overload: two faces of the same coin”.

American Society of Hematology (ASH), San Diego, CA 2018. “Novel insights into systemic iron regulation”.

1st KiTZ Symposium on Pediatric Oncology and Hematology, Heidelberg, Germany 2017. “The role of the second transferrin receptor in iron homeostasis and erythropoiesis”.

European Hematology Association (EHA), Copenhagen, Denmark 2016. “Crosstalk between iron and erythropoiesis”.

ESH-ENERCA Training Course on Diagnosis and Management of Very Rare Red Cell and Iron Disorders. Lisbon, Portugal 2016. “Very rare anemias related to abnormal iron metabolism”.

Congress of the International Biolron Society, Hangzhou, China 2015. “TMPRSS6 and BMP6 in iron homeostasis: a matter of balance”.

Summer School in Nutrigenomics. University of Camerino. Camerino, Italy 2014. “Regulation of iron homeostasis in physiologic and pathologic conditions”.

European Iron Club (EIC) Rennes, France 2012. “TMPRSS6/matriptase-2 in health and disease”.

EHA-ASH Translational Research Training in Haematology (TRTH), Marbella, Spain 2010. ” Translational opportunities in disorders of the hepcidin pathways”.

Heme Oxygenases in biology and medicine. 6th International Congress. Miami, FL 2009. Titolo: “The role of hemojuvelin in systemic iron regulation”.

### **Other Experience (contribution to science)**

#### **Journal reviewer**

**2007-** Reviewer for the American Journal of Hematology; American Journal of Physiology-Cell Physiology; Annals of Hematology; Blood; Blood Advances; Biochimie; Cell

Chemical Biology; Cell Death and Disease; Cell reports  
Methods; Developmental Dynamics; Experimental  
Hematology; Frontiers in Cell and Developmental Biology;  
Frontiers in Immunology; Haematologica; Hemasphere;  
Hepatology; International Journal of Molecular Sciences;  
Journal of Cellular and Molecular Medicine; Journal of  
Clinical Investigation; Liver International; Molecular  
Genetics and Metabolism; Nutrients; PlosOne; Science  
Reports; etc...

Grant reviewer

**2016-** Reviewer for the Grant Agency Kidney Research UK (2016); for the Polish Ministry of Science and Higher Education (MNiSW) (2019); for the National Science Center, Krakow, Polonia (2020); for the Medical Research Council (MRC) (2021); for the Marie Skłodowska-Curie (MSCA) programme- "Project Bienvenue" (2021); for the European Hematology Association (2020-2021).

Congress Abstract reviewer

**2012;2017; 2023** Abstract Reviewer, American Society of Hematology (ASH).

**2024** Abstract reviewer coordinator, American Society of Hematology (ASH).

**2014; 2018; 2022; 2024** Abstract Reviewer, European Iron Club Meeting (EIC).

**2014:** Member of the Scientific Committee, European Iron Club Meeting, Verona, Italy.

**2019; 2023; 2025** Abstract Reviewer, International Society for the Study of Iron in Biology and Medicine Meeting (BiolIron)

**2019; 2020; 2024** Abstract reviewer, EHA Meeting, Amsterdam, The Netherlands

Other Relevant Information