CURRICULUM VITAE

Date of Revision: June 2020

Name: Stefania Nicoli, Ph.D., Associated Professor

School: Yale University School of Medicine, Departments of Genetics and Medicine, Yale Cardiovascular Research Center

Education:

B.S.	(2003) Universita' degli Studi di Milano, Milano, Italy, Interdepartmental Program in Pharmaceutical Biotechnology.
Ph.D.	(2007) Universita' degli Studi of Brescia, Brescia, Italy, Department of Biomedical Biotechnology
Postdoctoral Research	(2011) UMASS Medical School, Worcester, MA, USA, Department of Gene Function and Expression

Career/Academic Appointments:

2019-present	Director of the Yale Zebrafish Phenotyping Core for Precision Medicine, Yale University School of Medicine, New Haven
2018-present	Associate Professor, Department of Genetics and Medicine, Yale University School of Medicine, New Haven, CT
2017-present	Assistant Professor, Department of Genetics, Yale University School of Medicine, New Haven, CT
2016-present	Assistant Professor, Department of Pharmacology, Yale University School of Medicine, New Haven, CT
2012-present	Assistant Professor, Cardiology, Department of Internal Medicine, Yale University School of Medicine, New Haven, CT
2011-2012	Research Associate, Department of Gene Function and Expression, UMASS Medical School, Worcester, MA

Professional Honors and Recognition (International, National, Regional)

2019	Helmholtz Distinguished Professorship Award (finalist), Helmholtz Association
2019	Transformational Project Award, American Heart Association (AHA)
2017	Edward Mallinckrodt Jr. Foundation (nominee), Yale University School of Medicine
2016	Springer Junior Investigator Award, North America Vascular Biology Organization
2015	Bohmfalk Scholar in Medical Research, Yale University School of Medicine
2015	Rudolph J Anderson Fellowship, Yale University School of Medicine
2013	Junior Investigator Member of ARTEMIS, Leducq Foundation
2012	New Investigator Research Grant (NIRG) Award, Alzheimer's Association
2010	NIH Pathway to Independence Award (K99/R00)

Current Grants

Agency: NIH/NHLBI
ID#1 1R01 HL130246-01
Title: Integrating miR-107 into signaling pathways that coordinate neurogenesis and brain vascular permeability
P.I.: Stefania Nicoli, Ph.D.
Percent Effort: 30%

Total Costs for project period: $1,250,000.00
Project period: 09/01/2015 – 08/31/2020

Agency: NIH/ NINDS
ID#1 1R01NS109160-01
Title: PPIL4 modulation of Notch links neurovascular malformation to brain aneurism
P.I.: Stefania Nicoli, Ph.D.
Percent Effort: 25%
Total Costs for project period: $1,250,000.00
Project period: 02/01/2019 – 1/31/2024

Agency: NIH/NIDDK
ID# R01HL142262
Title: miR-223 regulates endothelial to hematopoietic transition
PI: Stefania Nicoli, PhD.
CoPI: Karen K. Hirschi, PhD.
Total costs for project period: $ 4,250,000
Project period: 1/01/2020 - 1/01/2025

Agency: AHA-Transformational Project Award
ID# 18IPA34170385
Title: Vascular N-glycosylation controls endothelial to hematopoietic transition
P.I.: Stefania Nicoli, PhD
Percent Effort: 10%
Total costs for project period: $ 300,000
Project period: 07/01/2019 - 06/30/2022

Agency: NIH/NHLBI
ID#1 5R01EY025979-03
Title: Novel Approaches to Manipulate Sprouting Angiogenesis
P.I.: Anne Eichmann
Percent Effort: 5%
Total Costs for project period: $1,250,000.00
Project period: 09/01/2015 – 08/31/2020

Completed Grants

Agency: NIH/NIDDK
ID#1 R56DK118728
Title: miR-223 regulates endothelial to hematopoietic trasition
P.I.: Stefania Nicoli, Ph.D.
Percent Effort: 10%
Direct costs per year: $99,000
Total Costs for project period: $99,000
Project period: 08/01/2018 – 07/31/2019

Agency: AHA- Grant in Aid
ID#1 17GRNT33460426
Title: Hemodynamics Control of Artery Muscularization and Innervation
P.I.: Stefania Nicoli, Ph.D.
Percent Effort: 15%
Direct costs per year: $76,000
Total Costs for project period: $150,000.00
Project period: 01/01/2017 – 12/31/2018

Agency: Gilead
I.D.# Award R13168
Title: Study RTKs in Zebrafish Development
P.I.: Stefania Nicoli, PhD.

Percent effort: 15%
Total Costs for project period: $195,000.00
Project period: 12/01/2015-7/31/19.

Agency: NIH/NEI
ID#5R01EY025979-02 (Eichmann, PI)
Title: Novel Approaches to Manipulate Sprouting Angiogenesis the project examines the function of Neuropilin 1 in the retina angiogenesis.
P.I.: Anne Eichmann, PhD.
Role: Collaborator
Percent effort: 5%
Direct cost per year $225,000
Total Costs for project period: $ 1,125,000
Project period: 8/1/2016 – 7/31/2020

Agency: NIH/DHHS
I.D.# 1R01EY025979-01
Title: Novel approaches to manipulate sprouting angiogenesis
P.I.: Anne Eichmann
Co-Investigator: Stefania Nicoli, PhD.
Percent effort: 3%
Direct costs per year: $6,689.00
Project period: 08/01/2015-07/30/2016

Agency: NIH/NHLBI
I.D.# 1R56 HL 123998-01
Title: Linking Neurogenesis and vascular stabilization through neural miRNA dependent pathways
P.I.: Stefania Nicoli, Ph.D.
Percent effort: 30%
Direct costs per year: $250,000
Total costs for project period: $250,000
Project period: 09/01/2014-08/31/2015

Agency: Leducq Foundation
ID#: 09 CVD 02
Title: Transatlantic Network on Therapeutic Arteriogenesis and Metabolism Modulation
P.I.: Michael Simons
Percent Effort: 25%
Direct costs per year: $41,927
Total Costs: $129,007
Project Period: 3/1/2012 – 9/30/2014

Agency: NIRP, Alzheimer's Association
ID#: 12-259162
Title: miR-107 regulation of neurovascular permeability
P.I.: Stefania Nicoli, Ph.D.
Percent effort: 10%
Direct costs per year: $44,992
Total costs for project period: $90,908
Project period: 02/01/2013-01/31/2015

Agency: NIH/NHLBI
I.D.# K99/R00 HL 105791-04
Title: Role of the miR 221-222 Cluster in Vascular Development
P.I.: Stefania Nicoli, Ph.D.

Percent effort: 55%
Direct costs per year: $140,994
Total costs for project period: $563,881
Project period: 02/04/2011-01/31/2015

Invited Speaking Engagements, Presentations, Symposia and Workshops:

International

2020 Invited Speaker, NAVBO 2020, New Port, RI, USA.
"RNA-based mechanisms regulating neurovascular homeostasis"

2020 Invited Speaker, Endothelial Cell Phenotypes in Health and Disease Gordon Research, Conference (GRC), Spain.
"N-Glycome regulation limits the transdifferentiation of endothelial 1 cells into hematopoietic stem cells"

2019 Invited Speaker, Seminars in Biomedical Sciences, Porto Alegre, RS, Brazil.
"RNA mechanisms governing endothelial cell behaviors in development and homeostasis"

2019 Invited Speaker, Max-Delbrück-Centrum Helmholtz-Gemeinschaft, Berlin, Germany.
"RNA mechanisms governing endothelial cell behaviors in development and homeostasis"

2019 Invited Speaker, Zebrafish International Meeting, Suzhou, China.
"N-Glycome regulation limits the transdifferentiation of endothelial 1 cells into hematopoietic stem cells"

2019 Invited Speaker, Keystone Symposia, Small Regulatory RNAs, South Korea,
"N-Glycome regulation limits the transdifferentiation of endothelial 1 cells into hematopoietic stem cells"

2019 Chair of Plenary section in "Development and Maturation of CNS Barrier", Blood Brain Barrier meeting, NY, USA

2019 Invited Speaker, Cold Spring Harbor, Blood Brain Barrier meeting, NY, USA
"MicroRNA-dependent regulation of biomechanical genes establishes tissue stiffness homeostasis"

2019 Invited Speaker, Strategic Zebrafish PI Meeting, Asilomar, CA, USA
"N-Glycome regulation limits the transdifferentiation of endothelial 1 cells into hematopoietic stem cells"

2019 Invited Speaker, University of Brescia, Program in Precision Medicine, Italy.
"*Shaping the Vascular System in the contexts of Development, Homeostasis and Disease"*

2018 Chair of Plenary section in Gene Expression and Signaling Regulation, International Zebrafish meeting, Madison, WI, USA.

2018 Selected Speakers, International Vascular Biology Meeting, Helsinki, Finland.
"*Phenotypes in Homeostasis: tissue stiffness as a paradigm*"

2018 Invited Speaker, Wellcome Trust Centre for Cell Matrix Research, Manchester, UK, "*Phenotypes in Homeostasis: tissue stiffness as a paradigm*"

2018 Invited Speaker, Max Delbrück Center for Molecular Medicine, Berlin, Germany, *"Phenotypes in Homeostasis: tissue stiffness as a paradigm"*

2017 Invited Speaker, Yale-Uppsala-Munster Meeting, Firenze, Italy, "*Post-transcriptional regulation of biomechanical genes limit contractile forces to preserve tissue stiffness homeostasis."*

2016 Invited Speaker, University of Uppsala, Sweden, *"Zebrafish as a model for cardiovascular disorders."*

2016 Invited Speaker, University of Basel, Basel, Switzerland, *"Origin of phenotypic variability: lesson learned from miRNAs."*

2016 Invited Speaker, Frontier seminar series, Max-Planck-Institute, Munster, Germany *"Origin of phenotypic variability: lesson learned from miRNAs."*

2015 Invited Speaker, University of Brescia, Italy, *"miR-107 functions in neurovascular Coupling."*

2014 Invited Speaker, Zebrafish PI Meeting, Israel, *"A dicer-miR107 interaction regulates biogenesis of specific miRNAs crucial for neurogenesis."*

2014 Invited Speaker, University of Siena, Italy, "A dicer-miR107 interaction regulates biogenesis of specific miRNAs crucial for neurogenesis."

2013 Presenter Speaker, Leducq Foundation, Leuven, Belgium, "Profiling miRNAs in the cardiovascular system."

2013 Invited Speaker, Max Plank Institute, Munster, Germany, "A dicer-miR107 interaction regulates biogenesis of specific miRNAs crucial for neurogenesis."

2013 Invited Speaker, Max Plank Institute, Berlin, Germany, "A dicer-miR107 interaction regulates biogenesis of specific miRNAs crucial for neurogenesis."

2012 Selected speaker, Angiogenesis International Kloster Seeon Meeting, Kloster Seeon, Germany, "Role of mIR-107 in Blood brain Barrier formation."

2012 Presenter Speaker, Leducq Foundation, Leuven, Belgium, "miRNAs in hemodynamics and heterogeneity."

2010 Selected speaker, Angiogenesis International Kloster Seeon Meeting, Kloster Seeon, Germany, "miR-221 acts as a regulatory node to control endothelial tip cell migration and proliferation during angiogenesis."

2010 Invited Speakers, Max Plank Institute, Munster, Germany, "microRNA-mediated integration of haemodynamics and Vegf signaling during angiogenesis."

2010 Invited Speaker, Angiogenesis Meeting, Pontigniano, Italy, "microRNA-mediated integration of haemodynamics and Vegf signaling during angiogenesis."

National

2020 Invited Speaker, Penn Cardiovascular Institute, University of Pennsylvania, Philadelphia USA.
"RNA mechanisms governing endothelial cell behaviors in development and homeostasis"

2019 Invited Speaker, Northwestern University, Feinberg School of Medicine, Chicago USA.
"RNA mechanisms governing endothelial cell behaviors in development and homeostasis"

2019 Invited Speaker, University of Illinois at Chicago, "RNA mechanisms governing endothelial cell behaviors in development and homeostasis"

2018 Invited Speaker, Purdue University, West Lafayette, IN, "miR-223 functions in endothelia to hematopoiesis transition."

2017 Selected Speaker, 7th Strategic Conference of Zebrafish Investigators, Monterey, CA, "microRNAs Establish and Maintain Uniform Cellular Phenotypes during the Architecture of Complex Tissues."

2016 Selected Speaker, MARZ meeting, UPENN, Philadelphia, PA, "microRNAs Establish and Maintain Uniform Cellular Phenotypes during the Architecture of Complex Tissues."

2016 Selected Speaker, AHA/ATVB meeting, Nashville, TN, "microRNAs Establish and Maintain Uniform Cellular Phenotypes during the Architecture of Complex Tissues"

2016 Invited Speaker, Cornell University, New York, NY, "microRNAs Establish and Maintain Uniform Cellular Phenotypes during the Architecture of Complex Tissues."

2016 Invited Speaker, Columbia University, New York, NY, "Post-transcriptional regulation of biomechanical genes limit contractile forces to preserve tissue stiffness homeostasis."

2015 Selected Speaker, Zebrafish PI meeting, Monterey, CA, "Vascular mural cells instruct noradrenergic differentiation of sympathetic neurons in zebrafish embryos."

2015 Presenter Speaker, CVZM, UMASS Worcester, MA,"Vascular mural cells instruct noradrenergic differentiation of sympathetic neurons in zebrafish embryos."

2015 Invited Speaker, NHLBI, NIH Bethesda, MD, "Vascular mural cells instruct noradrenergic differentiation of sympathetic neurons in zebrafish embryos."

2014 Invited Speaker, Department of Medicine, North Carolina University, NC, "miRNAs function in cardiovascular development."

2013 Invited Speaker at NAVBO angiogenesis conference, Cape Cod, MA, *"miRNAs function in cardiovascular development."*

2008 Selected Speaker, International Conference in Zebrafish Development and Genetics, Madison, WI*, "miRNAs profiling in developing vessels."*

Professional Service:

2020 Organizer of North American Vascular Biology summer camp in Vascular Biology.

2018-p. Associate Member of the Board of the PhD Program in Precision Medicine of the Department of Molecular and Translational Medicine of the University of Brescia, Italy.

2018-p. Member of the Mentoring Committee in the Department of Genetics, Yale

2018-2019 Organizer of the Genetics Department Retreat, Yale University School of Medicine, New Haven, CT

2017-2018 Councilor of Educational Committee of the North American Vascular Biology Organization (NAVBO)

2016-p. Member of the Search Committee in Genetics, Yale

2016 Organizer, Connecticut Valley Zebrafish Meeting (CVZM), Yale University School of Medicine, New Haven, CT

2015 Co-Organizer, Yale Center for RNA Science and Medicine Annual Retreat, Yale University School of Medicine, New Haven, CT
2015 Organizer, Junior Faculty Annual Retreat, Yale University School of Medicine, New Haven, CT
2014- present Faculty Affiliate, Yale Stem Cell Institute, Yale University School of Medicine, New Haven, CT
2013-present Associate Member, Center for RNA Science and Medicine, Yale University School of Medicine, New Haven, CT
2012-present Associate Member, Vascular Biology and Therapeutics Program, Yale University School of Medicine, New Haven, CT

Professional Societies:

2016-present American Heart Association
2016-present International Zebrafish Society
2015-present Genetic Society of America
2013-present North American Vascular Biology Organization Member

Grant Review Activities:

2020 NIH/NHLBI Vascular Cell and Molecular Biology Study Section
2019 NIH/NCI Laboratory of Biochemistry and Molecular Biology, extramural reviewer.
2018-present NIH/ Development-1 study section-Special Emphasis Panel
2016-present NIH/CSR, Neuroscience Special Emphasis Panel
2015-present NIH/NIEHS, Special Emphasis Panel Study Section
2015-present American Heart Association, Vascular Wall Biology, Basic Science Study Section
2012 Medical Research Council Reviewer, Wellcome Trust for Biomedical Science

Editorial Activities:

2020-present Science
2019-present Nature Cell Biology
2019-present eLIFE (guest editor)
2018-present Disease Models & Mechanisms
2017-present Neuron
2016-present Development
2015-present Cell Reports
2015-present The EMBO Journal
2015-present Developmental Cell
2015-present Circulation Research
2014-present PLOS Genetics
2014-present Nature Communication
2011-present Blood
2010-present Arteriosclerosis, Thrombosis and Vascular Biology
2009-present BMC Genomic

Committee membership:

2018-present Educational Committee, Genetics Department, Yale University School of Medicine, New Haven, CT
2018-present Committee Member, Faculty Recruitment of Genetics, Yale University School of Medicine, New Haven, CT
2017-present Committee Member, Education Committee North America Vascular Biology (NAVBO)
2017-present Dissertation Advisory Committee, Dahyana Ariasescayola, Molecular Biophysics and Biochemistry, Yale Graduate School, 2-3 hour meeting, every 6 months

2017-present	Dissertation Advisory Committee, Vaughn Colleluori, Genetics Department, Yale Graduate School, 2-3 hour meeting, every 6 months
2017-present	Dissertation Advisory Committee, Yinyu Wu, Genetics Department, Yale Graduate School, 2-3 hour meeting, every 6 months
2017	Committee Member, Faculty Recruitment of Genetics, Yale University School of Medicine, New Haven, CT
2015-present	Dissertation Advisory Committee, Wenping Zhou, Cell Biology Yale Graduate School, 2-3 hour meeting, every 6 months
2015- present	Dissertation Advisory Committee, Elisabeth Mo, Pharmacology Department, Yale Graduate School, 2-3 hour meeting, every 12 months
2014-2016	Dissertation Advisory Committee, Yuwei Cheng, Computational Biology & Bioinformatics, Yale Graduate School, 2-3 hour meeting, every 6 months
2013-present	Dissertation Advisory Committee, Christine Rodent, Genetics Department, Yale Graduate School, 2-3 hour meeting, every 6 months

Bibliography

Peer Reviewed Original Research:

1) Kasper D.M., Wu Y., Mandl H.K., Salinas K., Ghersi J., Hintzen J., Armero W., He Z. Heindel D.W., Park J. Sessa W.C., Mahal L., Hirschi K., **Nicoli S.** N-Glycome regulates the endothelial to hematopoietic stem cells transition. In review, Science.

2) Kasper D.M., Wu Y., Mandl H.K., Salinas K., Ghersi J., Hintzen J., Armero W., He Z. Heindel D.W., Park J. Sessa W.C., Mahal L., Hirschi K., **Nicoli S.** N-Glycome regulation limits the transdifferentiation of endothelial cells into hematopoietic stem cells. BioRXiv doi: https://doi.org/10.1101/602912

3) W. Zhou, E. Ristori, L. He, JJ. Ghersi, S. Mehta, R. Zhang, C. Betsholtz, S. **Nicoli***, WC. Sessa. Akt is required for artery formation during embryonic vascular development. BioRxiv doi: https://doi.org/10.1101/2020.06.04.134718. *Co-Senior

4) W. Zhou, E. Ristori, L. He, JJ. Ghersi, S. Mehta, R. Zhang, C. Betsholtz, S. **Nicoli***, WC. Sessa. Akt is required for artery formation during embryonic vascular development. Cell Reports, in review

5) K. Tanaka , A. Prendergast , J. Hintzen , A. Kumar , M. Chung , A. Koleske , J. Crawford , S. Nicoli and M. A. Schwartz. Latrophilins are essential for endothelial junctional fluid shear stress mechanotransduction. BioRxiv doi: https://doi.org/10.1101/2020.02.03.932822

6) Barak T, Ristori E, Ercan-Sencicek AG, Miyagishima DF, Dong W, Jin SC, Henegariu O, Erson-Omay, Harmancı AS, Coskun S, Sempou E, Deniz E, Goc N, Yarman NY, Hintzen J, K. Rai, ES Connolly Jr., Ozturk AK, Louvi A, Bilguvar K, Lifton L, Khokha M, Kahle KT, Mishra-Gorur K, **Nicoli S.*,** Gunel M*. *PPIL4*, a novel regulator of Wnt signaling, is essential for cerebral angiogenesis and mutated in intracranial aneurysm patients. *Co-Senior. In preparation

7) Moro A., Driscol T., Zhang J., Lee D., Gu M., Gerstein M., Schwartz M., and **Nicoli S.** microRNA-dependent regulation of biomechanical genes establishes tissue stiffness homeostasis. Nature Cell Biology**,** Feb 11 2019 doi.org/10.1038/s41556-019-0272-y. PMC Journal-In Process

8) Moro A, Driscoll T, Armero W, Boraas L. C. , Kasper M.D., Baeyens N., Jouy C. , Mallikarjun V., Swift J, Joon A.S., Lee D, Zhang J., Gu M., Gerstein M, Schwartz M., Nicoli S. microRNA-dependent regulation of biomechanical genes establishes tissue stiffness homeostasis. BioXiv doi: https://doi.org/10.1101/359521.

9) Mo E. S., Cheng, Q., Reshetnyak A.V., Schlessinger J. and **Nicoli S**. Alk & Ltk-ligands are essential for iridophore development in zebrafish mediated by the receptor tyrosine kinase Ltk. PNAS 2017; 114: 12027–12032**.** PMCID:PMC5692561

10) Kasper MD., Moro A., Ristori E., Narayanan A., Hill-Teran G., Zhang, J., Lee, D., Gu, M., Gerstein, M., Fleming, E., Vejnar, C., Moreno-Mateos M., Giraldez A. and **Nicoli S.** microRNAs Establish and Maintain Uniform Cellular Phenotypes during the Architecture of Complex Tissues. Dev. Cell, 2017, 40:552-565.e5. PMCID:PMC5404386

11) Narayanan A., Hill-Teran G., Moro A., Ristori E., Kasper MD., Roden C., Lu J. and **Nicoli S.** In vivo mutagenesis of miRNA gene families using a scalable multiplexed CRISPR/Cas9 nuclease system. Scientific Reports. Scientific Reports 2016 Aug 30;6:32386. PMCID:PMC5004112

12) Lopez-Ramirez MA, Calvo C., Ristori E., Thomas JL, **Nicoli S**. Isolation and Culture of Adult Zebrafish Brain-derived Neurospheres. J Vis Exp. 2016 Feb 29;(108). PMCID:PMC4828210

13) Fortuna V, Pardanaud L, Brunet I, Ola R, Ristori E, Santoro MM, **Nicoli S***, Eichmann A*. Vascular mural cells instruct noradrenergic differentiation of sympathetic neurons in zebrafish embryos. Cell Rep. 2015 Jun 23;11(11):1786-96. *Co-senior authors. PMC Journal-In Process

14) 1Kallakuri S, Yu JA, Li J, Li Y, Weinstein BM, **Nicoli S** and Sun Z. Endothelial cilia are essential for developmental vascular integrity in zebrafish. J Am Soc Nephrol. 2015 Apr;26 (4) :864-75. PMCID:PMC4378100

15) Baeyens N., **Nicoli S**., Coon BG, Ross D., Van den Dries K, Han J., Lauridsen HM., Mejean C., Eichmann A., Thomas JL, Humphrey JD, Schwartz MA. Vascular remodeling is governed by a VEGFR3-dependent fluid shear stress set point. eLife 2015;4:e04645. PMCID:PMC4337723

16) 1MA Lopez-Ramirez, E. Ristori, A. Narayanan, G.Hill-Teran, C.F. Calvo, J.L. Thomas and **Nicoli S.** A dicer-miR107 interaction regulates biogenesis of specific miRNAs crucial for neurogenesis. Dev. Cell, 2015, 32:546–560. PMC Journal-In Process

17) Villefranc JA, **Nicoli S**, Bentley K, Jeltsch M, Zarkada G, Moore JC, Gerhardt H, Alitalo K, Lawson ND. A truncation allele in vascular endothelial growth factor c reveals distinct modes of signaling during lymphatic and vascular development. Development. 2013 Apr;140(7):1497-506. PMCID:PMC3596992

18) Tobia C, Chiodelli P, **Nicoli S**, Dell'era P, Buraschi S, Mitola S, Foglia E, van Loenen PB, Alewijnse AE Presta M. Sphingosine-1-phosphate receptor-1 controls venous endothelial barrier integrity in zebrafish. Arterioscler Thromb Vasc Biol. 2012 Sep;32(9):e104-16.

19) Rissone A, Foglia E, Sangiorgio L, Cermenati S, **Nicoli S**, Cimbro S, Beltrame M, Bussolino F, Cotelli F, Arese M. The synaptic proteins β-neurexin and neuroligin synergize with extracellular

matrix-binding vascular endothelial growth factor a during zebrafish vascular development. Arterioscler Thromb Vasc Biol. 2012 Jul;32(7):1563-72.

20) **Nicoli S**, Knyphausen K.P., Zhu J., Lakshmanan A. and Lawson N. miR-221 acts as a regulatory node to control endothelial tip cell migration and proliferation during angiogenesis. Dev. Cell. 2012 Feb 14;22(2):418-29.

21) Zizioli D, Forlanelli E, Guarienti M, **Nicoli S**, Fanzani A, Bresciani R, Borsani G, Preti A, Cotelli F, Schu P. Characterization of the AP-1 μ1A and μ1B adaptins in zebrafish (Danio rerio). Dev. Dyn. 2010 Sep;239(9):2404-12.

22) **Nicoli S,** Standley C., Walker P., Hurlstone A., Fogarty K. E., and Lawson N. D. microRNA-mediated integration of haemodynamics and Vegf signaling during angiogenesis. Nature 2010 Apr 22;464(7292):1196-200.

23) Leali D, Bianchi R, Bugatti A, **Nicoli S**, Mitola S, Ragona L, Tomaselli S, Gallo G, Catello S, Rivieccio V, Zetta L, Presta M. Fibroblast growth factor 2-antagonist activity of a long-pentraxin 3-derived anti-angiogenic pentapeptide. J Cell Mol Med. 2010 Aug;14(8):2109-21.

24) Urbinati C, **Nicoli S**, Giacca M, David G, Fiorentini S, Caruso A, Alfano M, Cassetta L, Presta M, Rusnati M. HIV-1 Tat and heparan sulfate proteoglycan interaction: a novel mechanism of lymphocyte adhesion and migration across the endothelium. Blood**.** 2009 Oct 8;114(15):3335-42.

25) Belleri M, Ribatti D, Savio M, Stivala LA, Forti L, Tanghetti E, Alessi P, Coltrini D, Bugatti A, Mitola S, **Nicoli S**, Vannini V, Presta M. alphavbeta3 Integrin-dependent antiangiogenic activity of resveratrol stereoisomers. Mol Cancer Ther. 2008 Dec;7(12):3761-70.

26) **Nicoli S**, De Sena G, Presta M. Fibroblast Growth Factor 2-induced angiogenesis in zebrafish: the zebrafish yolk membrane (ZFYM) angiogenesis assay. J Cell Mol Med. 2008 Jul 24.

27) **Nicoli S**, Tobia C, Gualandi L, De Sena G, Presta M. Calcitonin receptor-like receptor guides arterial differentiation in Zebrafish. Blood**.** 2008 May 15;111(10):4965-72.

28) **Nicoli S**, Presta M. The zebrafish/tumor xenograft angiogenesis assay. Nat Protocol. 2007;2(11):2918-23.

29) **Nicoli S**, Ribatti D, Cotelli F, Presta M. Mammalian tumor xenografts induce neovascularization in zebrafish embryos. Cancer Res. 2007 Apr 1;67(7):2927-31.

30) **Nicoli S**, Gilardelli CN, Pozzoli O, Presta M, Cotelli F. Gene Expr Patterns. 2005 Apr;5(4):539-44.

31) 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 Mar 1;109(5):1834-40. Epub 2006 Oct 31.

32) Dell'Era P, **Nicoli S,** Peri G, Nieddu M, Ennas MG, Presta M. FGF2-induced upregulation of DNA polymerase-delta p12 subunit in endothelial cells. Oncogene. 2005 Feb 3;24(6):1117-21.

33) Belleri M, Ribatti D, **Nicoli S,** Cotelli F, Forti L, Vannini V, Stivala LA, Presta M. Antiangiogenic and vascular-targeting activity of the microtubule-destabilizing trans-resveratrol derivative 3,5,4'-trimethoxystilbene. Mol Pharmacol. 2005 May;67(5).

34) 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 as fibroblast growth factor antagonists. Arterioscler Thromb Vasc Biol. 2005 Jan;25(1):71-6.

35) Dell'Era P, Ronca R, Coco L, **Nicoli S,** Metra M, Presta M. Fibroblast growth factor receptor-1 is essential for in vitro cardiomyocyte development. Circ Res. 2003 Sep 5;93(5):414-20.

Chapters, Books, and Reviews:

1. Santoro MM, **Nicoli S.** miRNAs in endothelial cell signaling: the endomiRNAs. Exp Cell Res. 2013 May 15;319(9):1324-30. Review. PMCID:PMC3648629

2. Lopez-Ramirez MA, **Nicoli S.** Role of miRNAs and epigenetics in neural stem cell fate determination. Epigenetics. 2014 Jan 1;9(1):90-100. Review. PMCID:PMC3928190

3. Ristori E. **Nicoli S.** miRNAs expression profile in zebrafish developing vessels. Methods Mol Biol. 2015;1214 :129-50. Book Chapter.

4. Ristori E. **Nicoli S**. Comparative functions of miRNAs in embryonic neurogenesis and neuronal network formation. Chapter 15; Elsevier, Imprint Academic press. Book Chapter.

5. Hirschi KK*, **Nicoli S***, Walsh K. Hematopoiesis Lineage Tree Uprooted: Every Cell Is a Rainbow. Dev. Cell. 2017 Apr 10;41(1):7-9. Invited Editorial *Co-senior authors. PMCID:PMC6183053

6. Kasper M.D. & **Nicoli S**. Epigenetic and Epitranscriptomic Factors Make a Mark on Hematopoietic Stem Cell Development. Current Stem Cell Reports, 10.1007/s40778-018-0113-0. Review PMCID:PMC5999335