

PERSONAL INFORMATION

Nora Bloise



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Nationality Italian

Position:

Research fellow

Adjunct professor

WORK EXPERIENCE

- 2022 - research fellowship, Istituti Clinici Maugeri Spa – Società Benefit, Pavia
- 2019-2022 post-doc researcher, Department of Molecular Medicine, University of Pavia
- 2018-2019 post-doc researcher, Fondazione Umberto Veronesi
- 2017-2018 post-doc researcher, Fondazione Umberto Veronesi
- 2014-2017 post-doc researcher, Department of Molecular Medicine, University of Pavia
- 2014-2015 visiting researcher, Stem Cell Institute Leuven (SCIL), KUL, University of Leuven, Belgium
- 2011 - 2014 PhD student in Biomedical Sciences, University of Pavia
- 2010-2011 research fellowship, Department of Molecular Medicine, University of Pavia
- 2009-2010 research fellowship, Department of Molecular Medicine, University of Pavia
- 2021- National Scientific Habilitation (ASN) for Associate Professor in Biochemistry in Italian Universities (Settore Concorsuale 05/E1- Biochimica - Call D.D. 2175/2018, VI semestre) valid from 01/06/2021 to 01/06/2030
- from 2018 - *Teaching Activity*
Adjunct professor in Biochemistry (3 CFU, SSD BIO/10) for Master Bioengineering course, Dipartimento di Ingegneria Industriale e dell'Informazione, University of Pavia
- from 2019 - Adjunct professor in Molecular Biology (1 CFU, SSD BIO/11) for Dentistry and Dental Prosthetics course, Dipartimento di Scienze Clinico Chirurgiche, Diagnostiche e Pediatriche, University of Pavia
- from 2022 - Adjunct professor in General Pathology (1CFU, SSD MED/4) on the degree course of MEDICINA E CHIRURGIA (Harvey course), Department of Molecular Medicine, University of Pavia
- Others teaching activities*
- Teaching Assistant (2016-) and tutor (2010-) in Chemistry and Biochemistry (Health Professions of Rehabilitation Sciences course and Basic Science- Medicine and Surgery "Harvey" course, Faculty of Medicine and Surgery)

-Tutor (2018-2019) in Chemistry/Biochemistry for Physical education/sports sciences and Dentistry and Dental Prosthetics, UNIPV
 -Co-supervisor of bachelor and master-degree theses

EDUCATION AND TRAINING

from 2011 - 2014 PhD student in Biomedical Sciences, curriculum Biochemistry, University of Pavia
 Thesis project: Cell Behavior Modulation Through Biophysical Factors: Biochemical and Cellular Effects

from 2006 - 2009 Master's degree with honors in Medical Biotechnologies, University of Florence
 Thesis project: L'effetto pleiotropico dell'adiponectina globulare a livello del muscolo scheletrico

from 2002 - 2006 Bachelor's degree in biotechnologies, University of Florence
 Thesis project: Il ruolo dell'adiponectina nel differenziamento muscolare

WORK ACTIVITIES

Awards PhD students' residential scholarships in Biomedical Field granted by Centro Comunicazione Ricerca, Collegio Ghislieri, Pavia, Italy, from 2012 to 2014

2017- Award "Lombardia è creatività" for Project "Breast Cancer: Smart nanogold spheres for defeat it" by Consiglio Regionale della Lombardia

2019 Award "Premio G. Mancini" by Rotary Club Cosenza Telesio

2019 Travel Award for young researcher by Società Italiana Biomateriali for the abstract "Synthesis and in vitro characterization of AuNPs conjugated with BEL β -trefoil lectin for breast cancer therapy" to attend "ESB Conference 2019" in Dresden, Germany

2021 Best poster presentation, Convegno della Società Italiana Biomateriali, Lecce 11-14 luglio 2021, poster title: "Targeting HER-2 positive breast cancer cells with photothermal-responsive gold nanoparticles" (N. Bloise, L. De Vita, M. Okkeh, E. Restivo, C. Volpini, P. Pallavicini, L. Visai)

Editorial activity Guest Editor of the Special Issue "Biomaterials for Bone Tissue Engineering 2020" of "Materials(MDPI)()

Topic Editor for the Research Topic "Cells, Biomaterials, and Biophysical Stimuli for Bone, Cartilage, and Muscle Regeneration" for Frontiers in Bioengineering and Biotechnology (<https://www.frontiersin.org/research-topics/27396/cells-biomaterials-and-biophysicalstimuli-forbone-cartilage-and-muscle-regeneration>)

Grants 2013: grant "International Mobility Project" AA 2013-2014, University of Pavia
 2015: travel grant for young researcher by Società Italiana di Fotobiologia (Bari, June 2015)
 2016: young researcher grants by COST ActionBM1309 to attend "School on Advanced Topics on Cell Model Systems" (Rome, June 2016); 600 euro
 2016: grant Postdoc Fellowships Fondazione Veronesi (FUV) 2017; Project: Advanced Gold Nanovectors for Photothermal Therapy of Breast Cancer; 27000 euro
 2017: grant Postdoc Fellowships FUV 2018; Project: Gold-nanoparticles platform for ER-positive breast cancer therapy; 27000 euro
 2018: grant Postdoc Fellowships FUV 2019; Project: GOld nanosystems FOR Breast Cancer therapy: insights on their interaction and uptake by different types of breast cancer cells (28.500, declined)
 2021: founder and project leader of the project "Breast cancer: smart nanogold spheres to defeat it. New challenges" granted by crowdfunding platform "UNIVERSITIAMO" of University of Pavia "<https://universitiamo.eu/campaigns/tumore-al-senosconfiggerlo-con-nanosfere-doro-intelligenti-nuove-sfide/>" Funds raise: 9.305 euro (update to 19.12.2023);

PERSONAL SKILLS

Mother tongue(s)	Italian
Other language(s)	English (upper intermediate level)
Job-related skills	Actively involved in public outreach and numerous research dissemination projects
Digital skills	Microsoft Office, Image J, Fiji, Adobe Photoshop, GrapPad, LAS X microscope software for Leica microscope

ADDITIONAL INFORMATION

Statement of Research Interests Nanomedicine for cancer therapy, tissue regeneration and bacterial disease therapy

Publications

total number of publications in peer-review journals: 44
total number of citations:1200
H index (Scopus): 17

1. Bloise N*, Strada S, Dacarro G, Visai L. Gold Nanoparticles Contact with Cancer Cell: A Brief Update. *Int J Mol Sci.* 2022 Jul 12;23(14):7683. doi: 10.3390/ijms23147683. PMID: 35887030; PMCID: PMC9325171. * corresponding author
2. Bloise N*, Waldorff EI, Montagna G, Bruni G, Fassina L, Fang S, Zhang N, Jiang J, Ryaby JT, Visai L. Early Osteogenic Marker Expression in hMSCs Cultured onto Acid Etching-Derived Micro- and Nanotopography 3D-Printed Titanium Surfaces. *Int J Mol Sci.* 2022 Jun 25;23(13):7070. doi: 10.3390/ijms23137070. PMID: 35806083; PMCID: PMC9266831. * corresponding author
3. Bloise N, Fassina L, Focarete ML, Lotti N, Visai L. Haralick's texture analysis to predict cellular proliferation on randomly oriented electrospun nanomaterials. *Nanoscale Adv.* 2022 Feb 16;4(5):1330-1335. doi: 10.1039/d1na00890k. PMID: 36133676; PMCID: PMC9419736.
4. Bloise N,* Okkeh M, Restivo E, Della Pina C, Visai L. Targeting the "Sweet Side" of Tumor with Glycan-Binding Molecules Conjugated-Nanoparticles: Implications in Cancer Therapy and Diagnosis. *Nanomaterials (Basel).* 2021 Jan 22;11(2):289. doi: 10.3390/nano11020289. PMID: 33499388. * corresponding author
5. Bloise N,* Patrucco A, Bruni G, Montagna G, Caringella R, Fassina L, Tonin C, Visai L. In Vitro Production of Calcified Bone Matrix onto Wool Keratin Scaffolds via Osteogenic Factors and Electromagnetic Stimulus. *Materials (Basel).* 2020 Jul 8;13(14):3052. doi: 10.3390/ma13143052. PMID: 32650489; PMCID: PMC7411850. * corresponding author
6. Bloise N, Rountree I, Polucha C, Montagna G, Visai L, Coulombe KLK, Munarin F. Engineering Immunomodulatory Biomaterials for Regenerating the Infarcted Myocardium. *Front Bioeng Biotechnol.* 2020 Apr 7;8:292. doi: 10.3389/fbioe.2020.00292. PMID: 32318563; PMCID: PMC7154131.
7. Bloise N, Massironi A, Della Pina C, Alongi J, Siciliani S, Manfredi A, Biggiogera M, Rossi M, Ferruti P, Ranucci E, Visai L. Extra-Small Gold Nanospheres Decorated With a Thiol Functionalized Biodegradable and Biocompatible Linear Polyamidoamine as Nanovectors of Anticancer Molecules. *Front Bioeng Biotechnol.* 2020 Mar 4;8:132. doi: 10.3389/fbioe.2020.00132. PMID: 32195232; PMCID: PMC7065572.
8. Martelli G,* Bloise N,* Merlettini A, Bruni G, Visai L, Focarete ML, Giacomini D. Combining Biologically Active β -Lactams Integrin Agonists with Poly(l-lactic acid) Nanofibers: Enhancement

of Human Mesenchymal Stem Cell Adhesion. *Biomacromolecules*. 2020 Mar 9;21(3):1157-1170. doi: 10.1021/acs.biomac.9b01550. Epub 2020 Feb 14. PMID: 32011862. *equal contribution

9. Bloise N,* Berardi E,* Gualandi C, Zaghi E, Gigli M, Duelen R, Ceccarelli G, Cortesi EE, Costamagna D, Bruni G, Lotti N, Focarete ML, Visai L, Sampaolesi M. Ether-Oxygen Containing Electrospun Microfibrous and Sub-Microfibrous Scaffolds Based on Poly(butylene 1,4-cyclohexanedicarboxylate) for Skeletal Muscle Tissue Engineering. *Int J Mol Sci*. 2018 Oct 17;19(10):3212. doi: 10.3390/ijms19103212. PMID: 30336625; PMCID: PMC6214009. *equal contribution

10. Bloise N,* Petecchia L, Ceccarelli G, Fassina L, Usai C, Bertoglio F, Balli M, Vassalli M, Cusella De Angelis MG, Gavazzo P, Imbriani M, Visai L. The effect of pulsed electromagnetic field exposure on osteoinduction of human mesenchymal stem cells cultured on nano-TiO₂ surfaces. *PLoS One*. 2018 Jun 14;13(6):e0199046. doi: 10.1371/journal.pone.0199046. PMID: 29902240; PMCID: PMC6002089. *corresponding author

Pavia, 19 01 2023

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