

# Curriculum Vitae

**Roberta Verta**

## PERSONAL INFORMATION

Family name, First name: **Verta, Roberta**

e-mail: **roberta.verta@unito.it**

## CURRENT POSITION(S)

---

*MBC- Molecular Biotechnology Center*

**PhD Student**

*Turin, Italy*

**October 2020**

To carry out research in the project entitled: Generation of spike- extracellular vesicles (S-EVs) as a tool to mimic SARS-CoV-2 interaction with host cells

Tutor: Prof. Benedetta Bussolati

*MBC- Molecular Biotechnology Center*

**Training of trainees and undergraduates**

*Turin, Italy*

**2020-2021**

I take care of the training and teaching of laboratory techniques and I follow trainees and undergraduates in their thesis projects

*University of Turin*

**Assistant teaching**

*Turin, Italy*

**2018 – 2021**

“Pharmacology I” Nursing degree, teaching general clinical nursing

Course manager: Dr. Arianna Carolina Rosa

*University of Turin*

**Assistant teaching**

*Turin, Italy*

**2018 – 2021**

“Pharmacology II” Nursing Degree, teaching clinical nursing in the medical area.

Course manager: Dr. Arianna Carolina Rosa

## PREVIOUS POSITIONS

---

*University of Turin, Department of Scienza e Tecnologia del Farmaco*

**Research scholarship**

*Turin, Italy*

**September 2019 – March 2020**

To carry out research in the project entitled: “Role of AGE and inflammation mediators as new biomarkers for the assessment of risk factors of diet-related diseases”, it consists in the development of experimental models suitable for the study of the effects induced by exposure to different dietary regimes and in the identification of signaling pathways involved in the metabolic alterations induced by AGEs and mediators of inflammation.

Tutor: Prof. Massimo Collino

*University of Turin, Department of Scienza e Tecnologia del Farmaco*

**Attending graduate**

*Turin, Italy*

**February – July 2019**

Experiences of pharmacological research in the field of cardiometabolic pathologies and histamine in diabetic nephropathy.  
Tutor: Dr. Arianna Carolina Rosa

*University of Turin, Department of Scienza e Tecnologia del Farmaco*  
**Internal student**

*Turin, Italy*  
**October 2017**

Development of master's Thesis entitled: "Effects of bilastine on the progression of diabetic nephropathy in male DBA2/J mice".  
Tutor: Dr. Arianna Carolina Rosa

*Unical, Department of Biology, Ecology and Earth Sciences*  
**Internship**

*Arcavacata, Rende, Italy*  
**March -May 2016**

Histological techniques in the laboratory of physiology of systems

## **EDUCATION**

---

*Unical, Department of Biology, Ecology and Earth Sciences*  
**Habilitation**

*Arcavacata, Rende, Italy*  
**November 2019**

Passing the state exam for qualification to practice the profession of biologist

*Molecolar Biotechnology Center*  
**Master's degree in Medical Biotechnology**

*Turin, Italy*  
**December 6<sup>th</sup>, 2018**

Valuation of 108/110 and dignity of the press. Master's Thesis entitled: "Effects of bilastine on the progression of diabetic nephropathy in male DBA2/J mice" aimed at assessing the ability of H1 antagonist to modulate nephropathy in models in vivo of diabetic mice treated with STZ.  
Supervisor: Prof. Benedetta Bussolati

*Molecolar Biotechnology Center*  
**Second level degree in Medical Biotechnology**

*Turin, Italy*  
**October 2016 – December 2018**

*Unical, Department of Biology, Ecology and Earth Sciences*  
**Bachelor's degree in Biotechnology**

*Arcavacata, Rende, Italy*  
**September 20<sup>th</sup>, 2016**

Valuation of 103/110 and with thesis entitled: "mutazioni germinali nel cancro pediatrico" (germline mutations in pediatric cancer).  
Tutor: Dr. Alberto Montesanto

*Unical, Department of Biology, Ecology and Earth Sciences*  
**First level degree in in Biotechnology**

*Arcavacata, Rende, Italy*  
**October 2013 – July 2016**

*Liceo Scientifico Statale "Galilei"*  
**Scientific diploma**  
valuation 100/100

*Paola, Italy*  
**September 2008 – June 2013**

## **FELLOWSHIPS AND AWARDS**

---

**2020** Junior Membership of International Society of Extracellular Vesicles

**2020** Junior Membership of EVIta Società Italiana per le vescicole extracellulari (Italian Society of Extracellular Vesicles)

**2019:** SocioJunior of the SIF Società Italiana Farmacologia (Italian Pharmacology Society)

**2018:** Bursary at the XLVII Meeting of the European Histamine Research Society (EHRS)  
Dublin; Ireland, 31<sup>th</sup> May 2018

**2018:** Member of the EHRS European Histamine Research Society

## **PEER-REVIEWED ORIGINAL PUBLICATIONS**

---

L. G. Di Pasqua, C. Berardo, M. Cagna, **R. Verta**, D. Collotta, F. Nicoletti, A. Ferrigno, M. Collino, M. Vairetti  
Metabotropic glutamate receptor blockade reduces preservation damage in livers from donors after cardiac death  
*International Journal of Molecular Sciences* accepted for publication February 2021

R Mastrocola, D. Collotta, G. Gaudio, M.L. Berre, A.S. Cento, G.A. Ferreira, F. Chiazza, **R. Verta**, I. Bertocchi, F. Manig, M.Hellwig, F. Fava, C. Cifani, M. Aragno, T. Henle, L. Joshi, K. Tuohy, M. Collino  
Effects of exogenous dietary advanced glycation end products on the cross-talk mechanisms linking microbiota to metabolic inflammation  
*Nutrients* 2020, 12 (9), 2497

D. Collotta, W. Hull, R. Mastrocola, F. Chiazza, A.S. Cento, C. Murphy, **R. Verta**, G.F. Alves, G. Gaudio, F. Fava, M. Aragno, K. Tuohy, C Thiernemann, M. Collino  
Baricitinib counteracts metaflammation thus protecting against diet-induced metabolic abnormalities in mice  
*Molecular Metabolism*, May 2020

A. Ferrigno, L.G. Di Pasqua, G. Palladini, C. Berardo, **R. Verta**, P. Richelmi, S. Perlini, D. Collotta, M. Collino, M. Vairetti  
Transient expression of RECK under hepatic ischemia/reperfusion conditions is associated with MAPK signaling pathways  
*Biomolecules* 2020, 10, 747

G.S.D. Purvis, M. Collino, H. M.A. Tavio, F. Chiazza, C. E. O' Riordan, L. Zeboudj, D. Collotta, **R. Verta**, N. E. S. Guisot, P. Bunyard, M. M. Yaqoob, D.R. Graves, C. Thiernemann  
Inhibition of Bruton's tyrosine kinase regulates macrophage NF-kB and NLRP3 inflammasome activation in metabolic inflammation  
*British Journal of Pharmacology*, July 2020

**R. Verta**, C. Grange, M. Gurrieri, S. Borga, P. Nardini, M. Argenziano, C. Ghè, R. Cavalli, E. Benetti, G. Miglio, B. Bussolati, A. Pini, A.C. Rosa, Effect of bilastine on diabetic nephropathy in DBA2/J mice.  
*International Journal of Molecular Sciences* 2019; 20(10)

A. Pini\*, **R. Verta**\*, C. Grange, M. Gurrieri, A. C. Rosa  
Histamine and diabetic nephropathy: an up-to-day overview. (\*equal contribution)  
*Clinical Science* 2019;133 41–54

C. Grange, M. Gurrieri, **R. Verta**, R. Fantozzi, A.Pini, A.C. Rosa.  
Histamine in the kidneys: what is its the role in renal pathophysiology?  
*British Journal of Pharmacology* 2019; 1-13

**R. Verta**, M. Gurrieri, S. Borga, M. Argenziano, P. Nardini, R. Cavalli, Grange C., A. Pini and A. C. Rosa  
Effect of bilastine on the progression of diabetic nephropathy in DBA2/J mice.  
*Inflammation Research* 2019; 46 (Suppl) S46

**R. Verta**, A. Pini, C. Grange, R.L. Thurmond, A.C. Rosa.  
JNJ39758979 Preserves Renal Aquaporin Expression Balance in a Model of Diabetic Nephropathy.  
*Inflammation Research* 2018; 67 (Suppl) S34

A. Pini, **R. Verta**, C. Grange, R.L. Thurmond, A.C. Rosa  
Renal Function in the H4R Knockout Mouse  
*Inflammation Research* 2018; 67 (Suppl) S34-35

## CONFERENCES

---

**R. Verta**, C. Grange, R. Skovronova and B. Bussolati  
Generation of spike-Extracellular vesicles (S-EVs) as a tool to mimic SARS-CoV-2 interaction with host cells  
*EVIta (Italian Society of Extracellular Vesicles), 2°Symposium, Lucca, Italy*  
"COVID-19 and extracellular vesicles"  
September, 20-22 , 2021

**R. Verta**, C. Grange, R. Skovronova and B. Bussolati  
Generation of spike-Extracellular vesicles (S-EVs) as a tool to mimic SARS-CoV-2 interaction with host cells  
*ISEV (International Society of Extracellular Vesicles) virtual meeting New York, United States*  
"Infectious Diseases and Extracellular Vesicles"  
25<sup>th</sup>-28<sup>th</sup> January 2021

C. Berardo, **R. Verta**, L.G. Di Pasqua, D. Collotta, F. Nicoletti, M. Vairetti, M. Collino, A. Ferrigno  
Cold ischemic injury is reduced by the mGluR5 negative allosteric modulator MPEP in rat livers from cardiac death donors  
*53rd Annual Meeting of the Italian Association for the Study of the Liver (A.I.S.F.)*  
27<sup>th</sup>-28<sup>th</sup> February 2020

D. Collotta\*, A. Sofia Cento\*, F. Chiazza\*, **R. Verta\***, T. Henle, F.Manig, M. Hellwig, G. Gaudio, F. Fava, K. Touhy, M. Aragno\*, R. Mastroccola, M. Collino  
Role of exogenous dietary advanced glycation end products (AGEs) in the cross-talk mechanisms linking diet, microbiota and metabolic inflammation (\* equal contribution)  
*39° National Congress of Italian Pharmacology Society (Società Italiana di Farmacologia) SIF*  
Florence, Italy, 20<sup>th</sup> -23<sup>th</sup> November 2019

L. G. Di Pasqua, G. Palladini, C. Berardo, **R. Verta**, V. Siciliano, P. Richelmi, D. Collotta, M. Collino

Early and transient activation of MAPKs and matrix metalloproteinases contributes to hepatic ischemia/reperfusion injury  
*39° National Congress of Italian Pharmacology Society (Società Italiana di Farmacologia) SIF  
Florence, Italy, 20<sup>th</sup>-23<sup>th</sup> November 2019*

**R. Verta**, C. Berardo, V. Siciliano, L.G. Di Pasqua, D. Collotta, F. Nicoletti, M. Vairetti, M. Collino, A. Ferrigno  
The mGlu5 negative allosteric modulator MPEP protects against cold ischemic injury in rat livers from donor after cardiac death.  
*39° National Congress of Italian Pharmacology Society (Società Italiana di Farmacologia) SIF  
Florence, Italy, 20<sup>th</sup>-23<sup>th</sup> November 2019*

**R. Verta**, C. Grange, M. Gurrieri, S. Borga, P. Nardini, M. Argenziano, C. Ghè, R. Cavalli, E. Benetti, G. Miglio, B. Bussolati, A. Pini, A.C. Rosa  
Bilastine preserves the glomerular junctional integrity in a murine model of diabetic nephropathy  
*39° National Congress of Italian Pharmacology Society (Società Italiana di Farmacologia) SIF  
Florence, Italy, 20<sup>th</sup>-23<sup>th</sup> November 2019*

**R. Verta**, M. Gurrieri, S. Borga, M. Argenziano, P. Nardini, R. Cavalli, Grange C., A. Pini and A. C. Rosa  
Effect of bilastine on the progression of diabetic nephropathy in DBA2/J mice  
*International Congress of European Histamine Research Society (EHRS)  
Krakow, Poland, 15<sup>th</sup>-20<sup>th</sup> May 2019*

**R. Verta**, A. Pini, C. Grange, R.L. Thurmond, A.C. Rosa  
JNJ39758979 Preserves Renal Aquaporin Expression Balance in a Model of Diabetic Nephropathy  
*International Congress of European Histamine Research Society (EHRS)  
Dublin, Ireland, 30<sup>th</sup> May-2<sup>nd</sup> June 2018*

A. Pini, **R. Verta**, C. Grange, R.L. Thurmond, A.C. Rosa, Renal Function in the H4R Knockout Mouse  
*International Congress of European Histamine Research Society (EHRS)  
Dublin, Ireland, 30<sup>th</sup> May-2<sup>nd</sup> June 2018*

## **PEER-REVIEWED CONFERENCE PROCEEDINGS**

---

**R. Verta**, M. Gurrieri, S. Borga, M. Argenziano, P. Nardini, R. Cavalli, Grange C., A. Pini and A. C. Rosa  
Effect of bilastine on the progression of diabetic nephropathy in DBA2/J mice  
*Inflammation Research 2019; 46 (Suppl1) S46*

**R. Verta**, A. Pini, C. Grange, R.L. Thurmond, A.C. Rosa  
JNJ39758979 Preserves Renal Aquaporin Expression Balance in a Model of Diabetic Nephropathy  
*Inflammation Research 2018; 67 (Suppl1) S34*

A. Pini, **R. Verta**, C. Grange, R.L. Thurmond, A.C. Rosa  
Renal Function in the H4R Knockout Mouse  
*Inflammation Research 2018; 67 (Suppl1) S34-35*

## **SEMINARY ATTENDANCE**

---

**2020** EVIta Workshop online “EV based biomarkers”, Turin, Italy

**2019** Droplet Digital PCR Scientific Conference 2019  
Centro Congressi Ospedale San Raffaele c/o DIBIT 1, Milan, Italy

**2018** Alpha technology: Luminescence kits for Cell viability, Cell cytotoxicity and Gene reporter  
Assays Department of Scienza e Tecnologia del Farmaco, Turin, Italy

## **TECHNICAL SKILLS**

---

**Animal Manipulation:** I have the know out to perform both intraperitoneal and oral gavage administration; moreover, I learnt to evaluate glycaemic measurements in mice and to perform urine collection by metabolic cages for renal function analysis

**Cell Culture:** In particular, I have extensive experience in HEK-293T cell line (Human embryonic kidney 293 cells) transfected, in HMEC (human microvascular endothelial cells) HK-2 (immortalized proximal tubule epithelial cell line) and Caco2 (Continuous adenocarcinoma cell line) culturing in both monodimensional and bi-dimensional (transwell) systems.  
MTT cell-proliferation assay

**Extracellular Vesicles (EVs) analysis and characterization:** Nanosight, Super Resolution Microscope, MACSPlex, ExoView, labelling EVs, EVs uptake evaluation and modulation.

**Molecular Biology:** proteins, DNA, RNA extraction and quantification; immunoblotting, PCR, FACS

**Biochemical and analytical analysis:** ELISA; base knowledge of HPLC

**Histology:** tissue and cell fixation and processing, Hematoxylin-Eosin staining, PAS staining, cytoimmunofluorescence, Immunofluorescence, Immunohistochemistry

## **PERSONAL SKILLS AND COMPETENCES**

---

**First language:** Italian

**Second language:** English

**Software:** JAVA, GraphPad Prism, ImageJ, Microsoft Windows, Microsoft Office (Word, Excel, Power Point)

I hereby authorize you to use and process my personal details contained in this document

Turin 30/09/2021

Roberta Vata