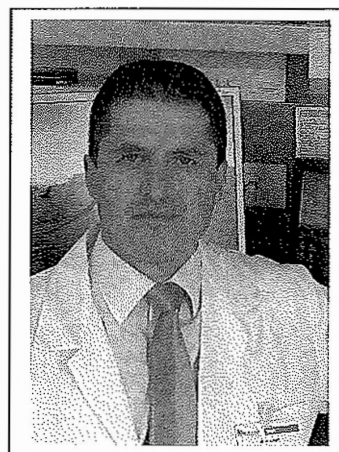


EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL  
INFORMATION

Name **TIRIBUZI, ROBERTO**  
Address  
Tel  
E-mail  
Nationality **Italian**

WORK EXPERIENCE

- Dates (from – to) **Nov 2013 – Present**
- Name and address of employer  
**IRTAL-LPMRI srl (Istituto di Ricerca Traslazionale per l'Apparato Locomotore Nicola Cerulli – LPMRI)**  
**Via Einstein 12L, Arezzo (AR) Italy.**
- Type of business or sector  
**Scientific research in life sciences**
- Occupation or position held  
**Scientific Coordinator,**  
**Manager of the Biology and Regenerative Medicine laboratory**  
**Coordination of IRCA research activities,**
- Main activities and responsibilities
  - Preparation, finalization and execution of research contracts with private chemical/pharmaceutical companies.
  - Preparation of research grant for Italian and EU public opportunity for IRTAL alone or in collaboration with private or public partners (other SMEs, Universities or University Hospitals).
  - Direction and coordination of the **BIOFOSTE** (Clinical validation of a Biomarker panel For OSTEoarthritis diagnosis) project, an **H2020 SME inst PHC12** founded project.
- Dates (from – to) **Academic years : 2012/2013; 2013-2014; 2014-2015; 2015-2016**
- Name and address of employer  
**University of Perugia (PG)**  
**piazza Università 1, 061100, Perugia (Italy)**
- Type of business or sector  
**Academic**
- Occupation or position held  
**Adjunct Professor**

- Dates (from – to) 30 Sept 2012 - 30 Sept 2013
  - Name and address of employer Department of Experimental Medicine and Biochemical Sciences, Sec. Biochemistry and Molecular Biology of the University of Perugia
  - Type of business or sector Academic
  - Occupation or position held **Research fellow**
  - Main activities and responsibilities Research activity about: **Bio-molecular correlations between gestational diabetes and metabolic syndrome.**  
The main activity was to investigate the expression and processing of Casp3 and PARP1 enzymes in cord blood lymphocytes from newborn babies in relation to the glycaemic control reached by the diabetic mothers during pregnancy. The main responsibilities were related to experimental execution, data analysis and scientific paper writing.
- 
- Dates (from – to) 30 Sept 2010-30 Sept 2012
  - Name and address of employer Department of Experimental Medicine and Biochemical Sciences, Sec. Biochemistry and Molecular Biology of the University of Perugia
  - Type of business or sector Academic
  - Occupation or position held **Coordinated Continuous Collaborator**
  - Main activities and responsibilities The main activity was to investigate the interaction between stem cells and biomaterials for the development of experimental models of regenerative medicine. The main responsibilities were related to advice about Adipose Derived Mesenchymal Stem cell culture and differentiation and cytoskeleton analysis by fluorescence microscopy.
- 
- Dates (from – to) Nov 2009- Nov 2010
  - Name and address of employer Department of Experimental Medicine and Biochemical Sciences, Sec. Biochemistry and Molecular Biology of the University of Perugia.
  - Type of business or sector Academic
  - Occupation or position held **Research fellow**
  - Main activities and responsibilities Research activity aimed at the identification of early biochemical and genetic markers for the prevention of Alzheimer's disease in people suffering from Diabetes Mellitus.  
The main responsibilities were related to samples collection and candidate biochemical markers analysis by immunoassay (ELISA), enzymatic assay and miRNAs expression by RT-Real-Time PCR.. We have analyzed the relation between the miRNA 128, founded up-regulated in AD patients, and amyloid- $\beta$  ( $A\beta(1-42)$ ) metabolism demonstrating that miR-128 inhibition in monocytes from AD patients improves  $A\beta(1-42)$  degradation rate contributing to clarify the molecular mechanisms that affect the imbalanced  $A\beta$  production/clearance involved in the pathogenesis of AD.

- Dates (from – to) Nov 2006- Nov 2009
- Name and address of employer Department of Experimental Medicine and Biochemical Sciences, Sec. Biochemistry and Molecular Biology of the University of Perugia Academic
- Type of business or sector **Research fellow**
- Occupation or position held Research about the use of stem cells and biomaterials for the production of Artificial Human Transplantable Tissues (TAUT).
- Main activities and responsibilities

The rationale of this work is that stem cells are highly sensitive to forces and that they may convert mechanical stimuli into a chemical response. The main responsibilities were related to the execution of research activities on stem cells and biomaterials to investigate their interactions with more focus on the implication of the mechanical stimulation named mechanotransduction.

#### NATIONAL SCIENTIFIC ABILITATION

**Call D.D. 1532/2016**  
**Sector: 05/F1**  
**Applied Biology**

**Dates (From-to)** 26/07/2017-26/07/2023

#### EDUCATION AND TRAINING

- Dates (from – to) Nov 2002 – Nov 2006
- Name and type of organisation providing education and training University of Perugia (PG)  
piazza Università 1, 061100, Perugia (Italy)
- Principal subjects/occupational skills covered Biochemistry, Molecular Biology, Enzymatic assay, statistical analysis.
- Title of qualification awarded **PhD** in “Biology and Molecular Biotechnology”.

Thesis title: “Lysosomal enzymes and molecular basis of inflammation: therapeutic implications for the treatment of GM2-gangliosidosis.”

- Dates (from – to) 25 Oct 2002
- Name and type of organisation providing education and training University of Perugia (PG)  
piazza Università 1, 061100, Perugia (Italy)
- Principal subjects/occupational skills covered Biochemistry, Molecular Biology, Enzymatic assay, SDS PAGE western blotting.
- Title of qualification awarded **Biological Sciences degree:**

Thesis title “Murine Sulfamidase: characterization of the gene

and the promoter”.

**PERSONAL SKILLS  
AND COMPETENCES**

**MOTHER TONGUE  
OTHER LANGUAGES**

Italian

English (Reading, Writing and Verbal skills: Good)

**Patents**

Inventor of the patent “COMPOSIZIONE BIODEGRADABILE PER IL TRATTAMENTO DI CAVITA’ E DIFETTI DEL TESSUTO OSSEO E RELATIVO METODO DI PREPARAZIONE”

N° 102017000110258.

**SOCIAL SKILLS  
AND COMPETENCES**

Attitudes: predisposition to team work; spirit of enterprise; making decisions in short time; good ability in learn and synthesize.

Personal qualities: serious, determined, suitability, communicative, concentrating, creative, versatile.

I have developed the ability to set relations with situations and people with social and familiar problems. These skills were acquired during my PhD because I have worked on human samples isolated from children affected by Lysosomal Storage Diseases (LSD), diseases characterized by several neurological problems as well as patients affected by Alzheimers Disease, their family members and physicians.

**ORGANISATIONAL SKILLS  
AND COMPETENCES**

Organizational skills were developed since high school with work groups and during the University formation when I had to work while I was studying.

These competences were further consolidated during my PhD course and, especially, during my current work experience as Scientific Coordinator of a multidisciplinary Research team, working closer with Bioengineers, Biologists and Physicians.

My actual work experience have improved my capacity to resolve unexpected events, developed during my PhD course, about technical and research problems.

I have improved my competencies about Research project preparation to be submitted to **Horizon 2020** calls.

In this regard I was the **Project manager of the BIOFOSTE project**, an H2020 granted project in the SME inst-PHC12 call (2015). In this project IRTAL was the coordinator and I have settled the Consortium composition, searched clinical and commercial partners. During the project execution I have monitored the work and prepared the periodic reports to be submitted to EU.

Similar work and role for the preparation and negotiation and execution

**TECHNICAL SKILLS  
AND COMPETENCES**

of research contracts with private national and international partners.  
Proven experience in scientific research: design, execution, presentation and publication of results, as demonstrated by several papers published on peer reviewed journal.

Good experience in several type of chromatography (ion-exchange, affinity, immuno-affinity, size exclusion) to perform **protein purification** from cell culture medium and cell or tissue extracts. Work applied to **Arylsulphatase A purification suitable for metachromatic leukodystrophy (MLD) enzyme replacement therapy** (see ref 25)

Expertise in the **development of new enzymatic assays** based on artificial fluorescent substrates based on 4-Methylumbelliferone or 7-Methoxycoumarin derivatives for hydrolases.

**I have contributed** as first co-author at the **development of a new assay for the Specific determination of beta-galactocerebrosidase** activity via AgNO<sub>3</sub> total inhibition of beta-galactosidase (Clinical Chemistry; 2009; 55 (3):541-54, see ref 21).

Complete autonomy to perform biological and biochemistry investigation starting from human samples such as blood, tissues biopsy or cells both immortalized or primary cells (enzymatic activity, western blotting etc..).

Good expertise in stem cells isolation such as Mesenchymal Stem Cells from Bone marrow or Adipose tissue (isolated from liposuction or infrapatellar fat pad biopsy) and for their "in vitro" differentiation toward bone, neural or fat immunophenotype.

Complete autonomy to perform gene expression assay profiling (RNA extraction, cDNA synthesis, RT-PCR or qPCR) or to perform miRNAs profiling using several technical approach: single miRNA quantification or multiple quantification by commercial Arrays.

Cell transfections with siRNAs, miRNAs in primary or immortalized cell lines.

Complete autonomy for major histological tissue fixation, coloration and analysis.

Good expertise in the use of fluorescence microscopy and related software (Nikon).

Complete autonomy on the execution and development, standardization of **ELISA test**, both commercial or developed *in house* .

Complete autonomy in the use of **Word, Excel, Power point, Adobe Photoshop** programs as well as Skype.

Excellent knowledge of the methods of **statistical analysis** and related software (**Linear regression, Correlation, ROC curve, One way ANOVA** and different post test such as Bonferroni or Kruskal-wallis post test).

## PUBLICATIONS

1. Casagrande Serena<sup>§</sup>, **Tiribuzi Roberto**<sup>§</sup>, Casseti Emanuele, Selmin Francesca, Gervasi Gianluca, Barberini Lanfranco, Freddolini Marco, Ricci Maurizio, Schoubben Aurélie, Cerulli Giuliano, Blasi Paolo.  
*Biodegradable polymer scaffold supports mesenchymal stem cell differentiation and calcium phosphate deposition.*  
Accepted by Artificial Cells, Nanomedicine and Biotechnology. ID is LABB-2017-0677  
<sup>§</sup> Equal contribution
2. Montagnoli C<sup>§</sup>, **Tiribuzi R**<sup>§</sup>, Crispoltoni L<sup>§</sup>, Pistilli A, Stabile AM, Manfreda F, Placella G, Rende M, Cerulli G.  *$\beta$ -NGF and  $\beta$ -NGF receptor upregulation in blood and synovial fluid in osteoarthritis.*  
Biol Chem. 2017 Mar 2. pii: /j/bchm.just-accepted/hsz-2016-0280/hsz-2016-0280.xml. doi: 10.1515/hsz-2016-0280  
<sup>§</sup> Equal contribution
3. **Tiribuzi R**, Crispoltoni L, Chiurchiù V, Casella A, Montecchiani C, Del Pino AM, Maccarrone M, Palmerini CA, Caltagirone C, Kawarai T, Orlacchio A, Orlacchio A.  
*Trans-crocetin improves amyloid- $\beta$  degradation in monocytes from Alzheimer's Disease patients.* J Neurol Sci. 2017 Jan 15;372:408-412. doi: 10.1016/j.jns.2016.11.004.
4. Gervasi GL, Vannucci J, **Tiribuzi R**, Freddolini M.  
*Biomechanical behaviour of native and sutured bronchi: An in-vitro study.* Technol Health Care. 2016;24(1):73-9. doi: 10.3233/THC-151040.
5. Gervasi G.L, **Tiribuzi R**, Geogoulis A., Cerulli G., Freddolini M.  
*A novel approach for patellofemoral tracking using a knee model reconstructed with a three-dimensional printer.* 3D PRINTING AND ADDITIVE MANUFACTURING, (2016) vol. 3, p. 33-38, ISSN: 2329-7662, doi: 10.1089/3dp.2015.0016
6. Stabile A, Pistilli A, Crispoltoni L, Montagnoli C, **Tiribuzi R**, Casali L, Rende M.  
*A role for NGF and its receptors TrKA and p75NTR in the progression of COPD.*  
Biol Chem. 2016 Jan 1;397(2):157-63. doi: 10.1515/hsz-2015-0208.
7. Speziali A, Delcogliano M, Tei M, Placella G, Chillemi M, **Tiribuzi R**, Cerulli G.  
*Chondropenia: current concept review.* Musculoskelet Surg. 2015 Jun 13; PMID:26068954
8. **Tiribuzi R**, Tartacca F, Aisa MC, Cerulli GG, Palmerini CA.  
*The impact of nitric oxide on calcium homeostasis in PE/CA-PJ15 cells.* Arch Oral Biol. 2014 Aug 7;59(12):1377-1383. doi: 10.1016/j.archoralbio.2014.07.022.
9. **Tiribuzi R.**, Crispoltoni L., Porcellati S., Di Lullo M., Florenzano F., Pirro M., Bagaglia F., Kawarai T., Zampolini M., Orlacchio A., Orlacchio An.  
*miR128 up-regulation correlates with impaired amyloid b(1-42) degradation in monocytes from patients with sporadic Alzheimer's disease.* Neurobiology of aging 2013 Aug 03; DOI dx.doi.org/10.1016/j.neurobiolaging.2013.08.003.
10. Rescignano N, Tarpani L, **Tiribuzi R**, Montesano S, Martino S, Latterini L, Kenny JM, Armentano I.

*Protein Encapsulation in Biodegradable Polymeric Nanoparticles: Morphology, Fluorescence Behaviour and Stem Cell Uptake*. *Macromol Biosci*. 2013 Jun 17. doi: 10.1002/mabi.201300140.

11. Tarquini F<sup>§</sup>, **Tiribuzi R**<sup>§</sup>, Crispoltoni L, Porcellati S, Del Pino AM, Orlacchio A, Coata G, Arnone S, Torlone E, Cappuccini B, Di Renzo GC, Orlacchio A.  
*3 activation and PARP cleavage in lymphocytes from newborn babies of diabetic mothers with unbalanced glycaemic control*. *Cell Biochem Funct*. 2013. doi: 10.1002/cbf.2975.  
<sup>§</sup> Equal contribution
12. Martino S, Montesano S, di Girolamo I, **Tiribuzi R**, Di Gregorio M, Orlacchio A, Datti A, Calabresi P, Sarchielli P, Orlacchio A.  
*Expression of cathepsins S and D signals a distinctive biochemical trait in CD34+ hematopoietic stem cells of relapsing-remitting multiple sclerosis patients*. *Mult Scler*. 2013 Mar 19. DOI 10.1177/1352458513477230
13. **Tiribuzi R**, Crispoltoni L, Tartacca F, Orlacchio A, Martino S, Palmerini CA, Orlacchio A.  
*Nitric oxide depletion alters hematopoietic stem cell commitment toward immunogenic dendritic cells*. *Biochim Biophys Acta*. 2013 Mar;1830(3):2830-8.
14. Francesco D'Angelo, Ilaria Armentano, Ilaria Cacciotti, **Roberto Tiribuzi**, Mattia Quattrocchi, Costantino Del Gaudio, Elena Fortunati, Enrica Saino, Auro Caraffa, Giuliano Giorgio Cerulli, Livia Visai, Josè Maria Kenny, Maurilio Sampaolesi, Alessandra Bianco, Sabata Martino and Aldo Orlacchio. *Tuning Multi/Pluri-Potent Stem Cell Fate by Electrospun Poly(L-lactic acid)-Calcium-Deficient Hydroxyapatite Nanocomposite Mats*. *Biomacromolecules* 2012 dx.doi.org/10.1021/bm3000716.
15. Martino Sabata, **Tiribuzi Roberto**, D'Angelo Francesco and Orlacchio Aldo. *Advanced Tools of Regenerative Medicine for Neurodegenerative Diseases*. *Recent Patents on Regenerative Medicine* 2012, 2, DOI: 2210-2965/12 \$100.00+.00
16. **Roberto Tiribuzi**, Francesco D'Angelo, Anna C. Berardi, Sabata Martino and Aldo Orlacchio. *Knock-down of HEXA and HEXB genes correlate with the absence of the immunostimulatory function of HSC-derived dendritic cells*. *Cell Biochemistry and Function* (2011) Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/cbf.1819
17. **Roberto Tiribuzi**, Antonio Orlacchio, Lucia Crispoltoni, Mariangela Maiotti, Mauro Zampolini, Massimiliano De Angelis, Patrizia Mecocci, Roberta Cecchetti, Giorgio Bernardi, Alessandro Dattia, Sabata Martino and Aldo Orlacchi. *Lysosomal  $\beta$ -Galactosidase and  $\beta$ -Hexosaminidase Activities Correlate with Clinical Stages of Dementia Associated with Alzheimer's Disease and Type 2 Diabetes Mellitus*. *Journal of Alzheimer's Disease* 24 (2011) 785–797.
18. Francesco D'Angelo, **Roberto Tiribuzi**, Ilaria Armentano, Josè Maria Kenny, Sabata Martino and Aldo Orlacchio. *Mechanotransduction: Tuning Stem Cells Fate* *J. Funct. Biomater*. 2011, 2, 67-87.
19. Filippo Mattoli, **Roberto Tiribuzi**, Francesco D'Angelo, Ilaria di Girolamo, Mattia Quattrocchi, Simona Montesano, Lucia Crispoltoni, Vasileios Oikonomou, Maria Gabriella

Cusella De Angelis, Peggy Marconi, Antonio Orlacchio, Maurilio Sampaolesi, Sabata Martino and Aldo Orlacchio. *Development of a New Tool for 3D Modeling for Regenerative Medicine*. International Journal of Biomedical Imaging Volume 2011, Article ID 236854, doi:10.1155/2011/236854

20. Sabata Martino, **Roberto Tiribuzi**, Elisa Ciraci, Georgia Makrypidi, Francesco D'Angelo, Ilaria di Girolamo, Angela Gritti, Gabriella M. Cusella de Angelis, Gianpaolo Papaccio, Maurilio Sampaolesi, Anna Concetta Berardi, Alessandro Datti, Aldo Orlacchio. *Coordinated involvement of cathepsins S, D and cystatin C in the commitment of hematopoietic stem cells to dendritic cells*. The International Journal of Biochemistry & Cell Biology 43 (2011) 775–783
21. F. D'Angelo, I. Armentano, S. Mattioli, L. Crispoltoni, R. Tiribuzi, G.G. Cerulli, C.A. Palmerini, J.M. Kenny, S. Martino, and A. Orlacchio. *Micropatterned hydrogenated amorphous carbon guides mesenchymal stem cells towards neuronal differentiation*. European Cells and Materials 2010, 20: 231 - 244 .
22. Sabata Martino, Ilaria di Girolamo, **Roberto Tiribuzi**, Francesco D'Angelo, Alessandro Datti and Aldo Orlacchio. *Efficient siRNA delivery by the cationic liposome DOTAP in human hematopoietic stem cells differentiating into dendritic cells*. J. Biomed. Biotechnol. 2009; Article ID 410260. doi: 10.1155/2009/410260. Epub 2009 May 31.
23. Sabata Martino, Francesco D'Angelo, Ilaria Armentano, **Roberto Tiribuzi**, Manuela Pennacchi, Mariaserena Dottori, Samantha Mattioli, Auro Caraffa, Giuliano Giorgio Cerulli, Josè Maria Kenny, Aldo Orlacchio. *Hydrogenated amorphous carbon nanopatterned film designs drive human bone marrow mesenchymal stem cell cytoskeleton architecture*. Tissue Engineering: Part A. 2009; Vol 15, (10) doi:10.1089/ten.tea.2008.0552. [Epub ahead of print] 2009; Apr 5.
24. Sabata Martino, Ilaria di Girolamo, Chiara Cavazzin, **Roberto Tiribuzi**, Rossella Galli, Anna Rivaroli, Manuela Valsecchi, Konrad Sandhoff, Sandro Sonnino, Angelo Vescovi, Angela Gritti, Aldo Orlacchio. *Neural precursor cell cultures from GM2 gangliosidosis animal models recapitulate the biochemical and molecular hallmarks of the brain pathology*. J. Neurochem. 2009; Apr;109(1):135-47.
25. Sabata Martino <sup>§</sup>, **Roberto Tiribuzi** <sup>§</sup>, Andrea Tortori, Daniele Conti, Ilaria Visigalli, Annalisa Lattanzi, Alessandra Biffi, Angela Gritti, and Aldo Orlacchio. *Specific determination of beta-galactocerebrosidase activity via AgNO<sub>3</sub> total inhibition of beta-galactosidase*. Clinical Chemistry; 2009; 55 (3):541-548.  
<sup>§</sup> Equal contribution
26. Chiara Balducci, Lucia Bibi, Thomas Berg, Emanuele Persichetti, **Roberto Tiribuzi**, Sabata Martino, Silvia Paciotti, Rita Roberti, Aldo Orlacchio, Tommaso Beccari. *Molecular cloning and structural organization of the gene encoding the mouse lysosomal di-N-acetylchitobiase (ctbs)*. Gene. 2008; 15; 416(1-2):85-91.
27. Egidia Costanzi, Sabata Martino, Emanuele Persichetti, **Roberto Tiribuzi**, Carlo Massini, Giorgio Bernardi, Antonio Orlacchio, Aldo Orlacchio. *Effects of Vitamin C on Fibroblasts from Sporadic Alzheimer's Disease Patients*. Neurochem. Res. 2008; 33:2510-2515.
28. **Tiribuzi Roberto**, Martino Sabata, Ciraci Elisa, D'Angelo Francesco, di Girolamo Ilaria, Datti Alessandro, Bottazzo GianFranco, Berardi Anna Concetta and Orlacchio Aldo. *Non-*



*redundant Roles of Cathepsins L, B and S in CD1a<sup>+</sup> Dendritic Cells Knocked-down for Cathepsin S by RNA Interference.* Minerva Biotechnologica. 2008; 20: 59-67.

29. Sabata Martino, Antonella Consiglio, Cristina Cavalieri, **Roberto Tiribuzi**, Egidia Costanzi, Giovanni Maria Severini, Emiliani C, Bordignon C, Orlacchio A. *Expression and purification of a human, soluble arylsulfatase a for metachromatic leukodystrophy enzyme replacement therapy.* J Biotechnol. 2005; 117(3):243-51.
30. Egidia Costanzi, Tommaso Beccari, Maria Cristina Aisa, **Roberto Tiribuzi**, John J. Hopwood, Aldo Orlacchio. *Mouse sulphamidase gene: characterization of the promoter region of the gene and expression in mouse tissues.* Gene. 2003; 310:143-149. doi:10.1016/S0378-1119(03)00531-6.

Valtopina,

yours faithfully

2017-12-07

Roberto Tiribuzi

