



## **CURRICULUM VITAE**

### **Personal details**

First name: Gabriele Maria

Surname: Togliatto

Nationality: Italian

Place and Date of birth: Lanzo (TO), 28.04.1977

E-mail address: gabriele.togliatto@gmail.com

### **Education and qualifications**

- 1996: Secondary School Certificate
- 11/03/ 2004: Degree in Biology, University of Torino.
- 24/07/2012: post-Degree in Clinical Pathology, University of Torino
- 2016: PhD in Medical Physiopathology, University of Torino

### **Research**

-2006-2013: post-degree fellowship (assegno di ricerca) in laboratory directed by M.F. Brizzi (Department of Medical Sciences, University of Torino) on a various projects by the titles:

“Role of Stem Cell Factor (SCF) receptor and c-kit in inflammatory neoangiogenesis.”. (assegno di ricerca A16.199/X\*)

“Role of the STAT5/PPAR $\gamma$  transcriptional complex in angiogenic cell bioavailability in diabetes.” (assegno di ricerca PROG100413)

“Role of UnAG, fragments and analogues in vascular cell damage and in muscle regeneration”. (assegno di ricerca from Alizè Pharma)

2014-: Role of extracellular vesicles (EVs) in diabetes-associated vascular complications

## **Projects devised and managed**

“Effects induced by des-acyl ghrelin (UAG) on EPCs of diabetic patients”.

“Role of MIR221/MIR222 in vascular cell damage.

“Effects induced by des-acyl ghrelin (UAG) on pre-clinical model of hind-limb ischemia”.

“Role of extracellular vesicles (EVs) pro-angiogenic potential in obesity: impact on clinical applications”

“ Role of extracellular vesicles (EVs) in contributing to vessel stabilization in diabetes setting.”

## **Collaborations**

**2008-2011:** collaboration with Prof Ghigo and Dr Granata in the project entitled “Obestatin regulates adipocyte function and protects against diet-induced insulin resistance and inflammation”

**2009-2012:** collaboration with Prof Ghigo and Dr Granata in the project entitled “Des-acyl ghrelin fragments and analogues promote survival of pancreatic  $\beta$ -cells and human pancreatic islets and prevent diabetes in streptozotocin-treated rats”

**2009-2015:** collaboration with ALIZE' PHARMA in the project regarding the role of des-acyl ghrelin on pre-clinical model of hind-limb ischemia”.

**2013-2016:** collaboration with Prof Camussi and Dr Solini in the project regarding the role of the microvesicles recovered from adipose-derived stem cells.

**2014-** collaboration with Prof. Camussi in the project regarding the role of extracellular vesicles (EVs) in diabetes-associated vascular complications

## **Reviewer activity:**

- Journal of Endocrinological Investigation
- Endocrine
- Surgery for Obesity and Related Diseases
- Journal of Cellular and Molecular Medicine
- International Journal of Endocrinology

## **Main fields of scientific activity .**

- Bone-marrow and circulating endothelial progenitor cell biology,
- Vascular biology in diabetes-associated vascular complications,
- microRNA analysis in diabetes-associated vascular disease,
- extracellular vesicles (EVs) in diabetes-associated vascular complications
- Inflammatory and tumour angiogenesis.

## **Knowledge of laboratory techniques**

- Good practice in hind-limb ischemia in mouse model.
- Ability in animal manipulation.
- Good experience in cellular and molecular biology.
- Phenotype analysis of transgenic mice: DNA extraction from tissues and cell cultures, use of PCR (qualitative PCR, RT-PCR, Long Template PCR), microarray assay, DNA sequencing.
- Phenotype analysis: RNA manipulation (animal tissue extractions, cell culture extractions; electrophoresis on agarose gel), protein manipulation (protein extraction from tissue, analysis by SDS-PAGE, Western Blotting, ChIP), immunohistochemistry.
- Cell culture: immortalized cell culture, FACS analysis, immunofluorescence of cell culture, protein extraction, primary cell culture (endothelial progenitor cells)
- Immunological technique: ELISA, immunoprecipitation of proteins from tissues and cells

## **Other skills and qualifications**

- From 2008: assistant for the bachelor course in physiotherapy and nursing
- From 2010: thesis supervision for students of bachelor course in Medicine and Surgery and Biothecnology.

## **Social skills and competences**

Good experience in working with other people, in position where communication and team work is very important

## **Organization skills and competences**

Good experience in team working, where the ability to cooperate and the encouragement of cooperation is essential, acquired both in scientific environment and in other associations.

## **Research output (Publications)**

Zeoli A, Dentelli P, Rosso A, Togliatto G, Trombetta A, Damiano L, Francia di Celle P, Pegoraro L, Altruda F, Brizzi MF. Interleukin-3 (IL-3) promotes expansion of hemopoietic –derived CD45+ angiogenic cells and their arterial commitment via STAT5 activation. **Blood**. 2008;**112(2):350-61**. doi: **10.1182/blood-2007-12-128215**.

Dentelli P, Trombetta A, Togliatto G, Zeoli A, Rosso A, Uberti B, Orso F, TavernaD, Pegoraro L, Brizzi MF. Formation of STAT5/PPAR{gamma} Transcriptional Complex Modulates Angiogenic Cell Bioavailability in Diabetes.

**Arterioscler Thromb Vasc Biol. 2009;29(1):114-20. doi: 10.1161/ATVBAHA.108.172247.**

Togliatto G, Trombetta A, Dentelli P, Baragli A, Rosso A, Granata R, Ghigo D, Pegoraro L, Ghigo E, Brizzi MF. UNACYLATED GHRELIN RESCUES ENDOTHELIAL PROGENITOR CELL FUNCTION IN INDIVIDUALS WITH TYPE 2 DIABETES. **Diabetes** 2010;59(4):1016-25. doi: 10.2337/db09-0858.

G.Togliatto, A.Trombetta, P.Dentelli, A.Rosso and MF.Brizzi. miR-221/miR-222-DRIVEN POST-TRANSCRIPTIONAL REGULATION OF p27<sup>KIP1</sup> AND p57<sup>KIP2</sup> IS CRUCIAL FOR HIGH GLUCOSE-AND AGE-MEDIATED VASCULAR CELL DAMAGE. **Diabetologia** 2011;54(7):1930-40. doi: 10.1007/s00125-011-2125-5.

-Granata R, Settanni F, Julien M, Nano R, Togliatto G, Trombetta A, Gallo D, Piemonti L, Brizzi MF, Aribat T, van Der Lely AJ, Ghigo E. Des-acyl ghrelin fragments and analogues promote survival of pancreatic  $\beta$ -cells and human pancreatic islets and prevent diabetes in streptozotocin-treated rats. **J Med Chem.** 2012;55(6):2585-96. doi: 10.1021/jm201223m.

-Granata R, Gallo D, Luque RM, Baragli A, Scarlatti F, Grande C, Gesmundo I, Córdoba-Chacón J, Bergandi L, Settanni F, Togliatto G, Volante M, Garetto S, Annunziata M, Chanclón B, Gargantini E, Rocchietto S, Matera L, Datta G, Morino M, Brizzi MF, Ong H, Camussi G, Castaño JP, Papotti M, Ghigo E. Obestatin regulates adipocyte function and protects against diet-induced insulin resistance and inflammation. **FASEB J.** 2012;26(8):3393-411. doi: 10.1096/fj.11-201343.

Dentelli P, Barale C, Togliatto G, Trombetta A, Olgasi C, Gili M, Riganti C, Toppino M, Brizzi MF. A diabetic milieu promotes OCT4 and NANOG production in human visceral-derived adipose stem cells. **Diabetologia.** 2013;56(1):173-84. doi: 10.1007/s00125-012-2734-7.

Trombetta A, Togliatto G, Rosso A, Dentelli P, Olgasi C, Cotogni P, Brizzi MF. Increase of palmitic acid concentration impairs endothelial progenitor cell and bone marrow-derived progenitor cell bioavailability: role of the STAT5/PPAR $\gamma$  transcriptional complex. **Diabetes.** 2013;62(4):1245-57. doi: 10.2337/db12-0646.

Olgasi C, Dentelli P, Rosso A, Iavello A, Togliatto G, Toto V, Liberatore M, Barutello G, Musiani P, Cavallo F, Brizzi MF. DNA vaccination against membrane-bound Kit ligand: a new approach to inhibiting tumour growth and angiogenesis. **Eur J Cancer.** 2014;50(1):234-46. doi: 10.1016/j.ejca.2013.09.016.

Togliatto G, Trombetta A, Dentelli P, Cotogni P, Rosso A, Tschöp MH, Granata R, Ghigo E, Brizzi MF. Unacylated ghrelin promotes skeletal muscle regeneration

following hindlimb ischemia via SOD-2-mediated miR-221/222 expression. **J Am Heart Assoc.** 2013;2(6):e000376. doi: 10.1161/JAHA.113.000376.

Dentelli P, Traversa M, Rosso A, Togliatto G, Olgasi C, Marchiò C, Provero P, Lembo A, Bon G, Annaratone L, Sapino A, Falcioni R, Brizzi MF. miR-221/222 control luminal breast cancer tumor progression by regulating different targets. **Cell Cycle.** 2014;13(11):1811-26. doi: 10.4161/cc.28758.

Togliatto G, Trombetta A, Dentelli P, et al., Unacylated ghrelin induces oxidative stress resistance in a glucose intolerance and peripheral artery disease mouse model by restoring endothelial cell miR-126 expression. **Diabetes.** 2015 Apr;64(4):1370-82. doi: 10.2337/db14-0991.

Togliatto G, Dentelli P, Brizzi MF. Skewed Epigenetics: An Alternative Therapeutic Option for Diabetes Complications. **J Diabetes Res.** 2015;2015:373708. doi: 10.1155/2015/373708. Review.

Togliatto G, Dentelli P, Gili M, Gallo S, Deregibus C, Biglieri E, Iavello A, Santini E, Rossi C, Solini A, Camussi G, Brizzi MF. Obesity reduces the pro-angiogenic potential of adipose tissue stem cell-derived extracellular vesicles (EVs) by impairing miR-126 content: impact on clinical applications. **Int J Obes (Lond).** 2016;40(1):102-11. doi: 10.1038/ijo.2015.123.

Lombardo G, Dentelli P, Togliatto G, Rosso A, Gili M, Gallo S, Deregibus MC, Camussi G, Brizzi MF. Activated Stat5 trafficking Via Endothelial Cell-derived Extracellular Vesicles Controls IL-3 Pro-angiogenic Paracrine Action. **Sci Rep.** 2016;6:25689. doi: 10.1038/srep25689.

Gallo S, Gili M, Lombardo G, Rossetti A, Rosso A, Dentelli P, Togliatto G, Deregibus MC, Taverna D, Camussi G, Brizzi MF. Stem Cell-Derived, microRNA-Carrying Extracellular Vesicles: A Novel Approach to Interfering with Mesangial Cell Collagen Production in a Hyperglycaemic Setting. **Plos one** 2016;11(9):e0162417. doi: 10.1371/journal.pone.0162417.

### **Research output (Publications) not in Pubmed**

Sara Gallo, Maddalena Gili, Gabriele Togliatto and Maria Felice Brizzi Diabetes-Associated Kidney and Vascular Complications: Mechanisms of Disease Progression and Alternative Therapeutic Options **J Mol Genet Med** 2014, **S1: 022**

Togliatto G., Traversa M., Orsello A., Brizzi MF. Unacylated gherlino (UnAG): A new treatment option for peripheral arterial disease? **Journal of Molecular and Genetic Medicine**. 2014, 8:108 Review.

## **AWARDS**

**D-DAY 2016: BEST POSTER PRESENTATION**, Torino, 15/09/2016

## **Conference Talks**

Italian Society of Obesity VIII National Congress: Rome, 29 September - 1 October 2016. **Eat Weight Disord. 2016 Sep;21(3):513-47. doi: 10.1007/s40519-016-0308-2.**

Bologna, 03/11-12/2016  
Società Italiana di diabetologia (SID)

Torino 11/25/2015  
Riunione annuale Società' Italiana di Medicina Interna (SIMI): sezione Piemonte e Valle d'Aosta

Torino, 06/2015  
Riunione annuale SID Piemonte e Valle d' Aosta

Bologna, 02/20-21/2015  
Società Italiana di diabetologia (SID)

Bologna 05/28-31/2014  
SID 25° Congresso Nazionale, Palazzo della Cultura e dei Congressi

Bologna 02/7-8/2014  
Società Italiana di diabetologia (SID)

Torino, 03/2014  
Riunione annuale SID Piemonte e Valle d' Aosta

Bologna 02/11-12/2011  
Riunione annuale Gruppo di Studio Diabete ed Aterosclerosi (SID)

Siena 03/26-27/2010  
ABCD Meeting

Padova, 02/5-6/2010

Riunione annuale Gruppo di Studio Diabete ed Aterosclerosi ( SID)

Roma, 12/10/2009

XVIII riunione interregionale SIMI

11/25-28/2009

XXIII National Congress of the Italian society for the Study of Atherosclerosis(SISA)

11/19-22/2008

XXII National Congress of the Italian society for the Study of Atherosclerosis (SISA)

Siena, 03/28-29/2008

ABCD Meeting

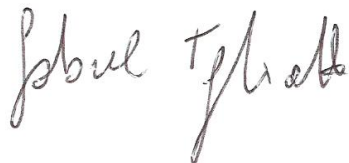
Milano, 11/8-9/2008

Riunione annuale Gruppo di Studio Diabete ed Aterosclerosi ( SID)

“In compliance with the Italian legislative Decree no. 196 dated 06/30/2003, I hereby authorize you to use and process my personal details contained in this document.”

Torino,

Firma

A handwritten signature in black ink, appearing to read "Sabul Tghat". The signature is written in a cursive, somewhat stylized script.