


PERSONAL INFORMATION

Michele Guescini


 Università degli Studi di Urbino Carlo Bo
 Dipartimento di Scienze Biomolecolari
 Sezione di Scienze Motorie e della Salute
 Via I. Maggetti, 26/2 (Loc Sasso)



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-guescini

Sex | Date of birth / / | Nationality

WORK EXPERIENCE

- From 2018 Until present **Associate Professor in Biochemistry – SSD BIO/10**
 Department of Biomolecular Sciences - University of Urbino Carlo Bo
- From 2014 to 2018 **Researcher RTDb – SSD BIO/10**
 Department of Biomolecular Sciences - University of Urbino Carlo Bo
- From 2008 to 2014 **Researcher RTDa – SSD BIO/11**
 Department of Biomolecular Sciences - University of Urbino Carlo Bo
- From 2003 to 2008 **Postdoctoral Fellow – SSD BIO/10**
 Department of Biomolecular Sciences - University of Urbino Carlo Bo

EDUCATION AND TRAINING

- 2003 **PhD in Biochemical and Pharmacological methodologies**
 University of Urbino Carlo Bo
- 1993 – 1998 **Master Degree in Biological Sciences**
 University of Urbino Carlo Bo
 Final Mark: 110/110 cum laude

PERSONAL SKILLS

Mother tongue(s) Replace with mother tongue(s)

Other language(s)

Replace with language

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1

Replace with name of language certificate. Enter level if known.

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
 Common European Framework of Reference for Languages

ADDITIONAL INFORMATION

- AWARDS** The paper "Fine needle aspiration coupled with real-time PCR: a painless methodology to study adaptive functional changes in skeletal muscle". *Nutr Metab Cardiovasc Dis.* 2007 Jun;17(5):383-93 è has been selected by the journal F1000 for the great interest of FNA methodology in the study of skeletal muscle.

The article "Microvesicle and tunneling nanotube mediated intercellular transfer of G-protein coupled receptors in cell cultures" *Exp Cell Res.* 2012 Mar 10; 318 (5): 603-13 has been selected by Global Medical Discovery as a scientific contribution of particular interest in the field of new drug development.

Grant reviewer

2021 – University of Perugia – Research Project 2020
2020 - NSERC Discovery Grants

Patent

(ITALIA) n. MO2012A000015 del 26 gennaio 2012; inventori designati: Stocchi Vilberto, Sisiti Davide, Guescini Michele, Panebianco Renato; titolo: Metodo Perfezionato per la determinazione quantitativa degli acidi nucleici.

Contributions to Science

Author of 86 publications in international journals and numerous participations in congresses
ORCID: <http://orcid.org/0000-0001-9372-7038>
Bibliometric parameters of the Scopus source: Author ID: 6507731460
H index = 25 (scopus)

Characterization of extracellular vesicles and their role in mediating cell-cell communication

In recent years, the research has been focused on the study of intercellular communication mediated by extracellular vesicles (exosomes, shedding vesicles, apoptotic bodies...) in "in vitro", "ex-vivo" and "in vivo" models. In particular, it was possible to demonstrate that:

- Muscle cells (C2C12 myoblasts) release microvesicles containing mtDNA, RNA, and proteins that are involved in the transduction of extracellular signals;
- Muscle releases signals through extracellular vesicles containing microRNAs potentially involved in communication with other organs; moreover, physical exercise can modulate muscle communication activity.
- The cells (HEK293T and COS-7) transfected with D2 or A2A receptors can exchange these proteins by vesicular transport.

Notably, my main research activity focused on studying the effects of different types of cellular vesicles (exosomes and shedding vesicles) released by muscle cells during the early stages of the myogenic differentiation process. These studies have shown that extracellular vesicles contain different molecular signals that modulate the myogenic process in an autocrine and paracrine manner (acting on immune system cells) under basal and stress conditions. The results obtained and the methodologies developed during this research activity also contributed to the development of new tumor markers.

Research Grants

2020 ATENEO Uniurb 2020 - e-PLANTS: Engineered PLAnt-derived vesicles as NanoTechnological Supplement (15,000 Euro). Role: Principal Investigator.

2020: awarded by Department of Biomolecular Sciences - Food safety projects Grant 2020 (4,200 Euro) by University of Urbino.

2014-2017. Ministry of Health, Call for Research Projects for Young Researchers - Finalized Research 2011-2012 (235,000 Euro); Project Code: GR-2011-02350264, Project Title: "STUDY OF THE ROLE OF EXTRACELLULAR VESICLES IN PROMOTING MYOGENIC DIFFERENTIATION" - Duration: 36 months; Role: Principal Investigator

Participation in funded research projects

Marche Region Project Resolution no. 10 of 27 July 2010: Physical activity protocols on subjects affected by type II diabetes - Duration: 12 months - Role: Research fellow;

Marche Region Project n. 21 resolution no. 70 of 20 November 2007: Clinical Physiology of Physical Exercise - Model of the Marche Region - Duration: 36 months - Role: Operational unit component - Research fellow

Memberships
Other Experience and
Professional Memberships

Member of the teaching staff of the PhD course "BIOMOLECULAR AND HEALTH SCIENCES" University of Urbino Carlo Bo
Member of the Board of the Italian Society for Extracellular Vesicles
Member of Italian Society of Biochemistry
Member of the editorial board of Biomolecules
Expert reviewer for international scientific journals

Scientific publications
 (Peer-Reviewed)

1. Stanly C, Kim H, Antonucci G, Fiume I, Guescini M, Kim KP, Ciardiello MA, Giangrieco I, Mari A, Pocsfalvi G. Crosstalk Between the Immune System and Plant-Derived Nanovesicles: A Study of Allergen Transporting. *Front Bioeng Biotechnol.* 2021 Nov 26;9:760730. doi: 10.3389/fbioe.2021.760730. eCollection 2021.
2. Salvi S, Bandini E, Carloni S, Casadio V, Battistelli M, Salucci S, Erani I, Scarpi E, Gunelli R, Cicchetti G, Guescini M, Bonafè M, Fabbri F. Detection and Investigation of Extracellular Vesicles in Serum and Urine Supernatant of Prostate Cancer Patients. *Diagnostics (Basel).* 2021 Mar 8;11(3):466. doi: 10.3390/diagnostics11030466.
3. Sola F, Canonico B, Montanari M, Volpe A, Barattini C, Pellegrino C, Cesarini E, Guescini M, Battistelli M, Ortolani C, Ventola A, Papa S. Uptake and Intracellular Trafficking Studies of Multiple Dye-Doped Core-Shell Silica Nanoparticles in Lymphoid and Myeloid Cells. *Nanotechnol Sci Appl.* 2021 Mar 8;14:29-48. doi: 10.2147/NSA.S290867. eCollection 2021.
4. Maggio S, Polidori E, Ceccaroli P, Cioccoloni A, Stocchi V, Guescini M. Current Methods for the Isolation of Urinary Extracellular Vesicles. *Methods Mol Biol.* 2021;2292:153-172. doi: 10.1007/978-1-0716-1354-2_14.
5. Codenotti S, Marampon F, Triggiani L, Bonù ML, Magrini SM, Ceccaroli P, Guescini M, Gastaldello S, Tombolini V, Poliani PL, Asperti M, Poli M, Monti E, Fanzani A. Caveolin-1 promotes radioresistance in rhabdomyosarcoma through increased oxidative stress protection and DNA repair. *Cancer Lett.* 2021 May 1;505:1-12. doi: 10.1016/j.canlet.2021.02.005. Epub 2021 Feb 18.
6. Marassi V, Maggio S, Battistelli M, Stocchi V, Zattoni A, Reschiglian P, Guescini M, Roda B. An ultracentrifugation - hollow-fiber flow field-flow fractionation orthogonal approach for the purification and mapping of extracellular vesicle subtypes. *J Chromatogr A.* 2021 Feb 8;1638:461861. doi: 10.1016/j.chroma.2020.461861. Epub 2020 Dec 29.
7. Cavallo C, Merli G, Borzi RM, Zini N, D'Adamo S, Guescini M, Grigolo B, Di Martino A, Santi S, Filardo G. Small Extracellular Vesicles from adipose derived stromal cells significantly attenuate in vitro the NF- κ B dependent inflammatory/catabolic environment of osteoarthritis. *Sci Rep.* 2021 Jan 13;11(1):1053. doi: 10.1038/s41598-020-80032-7.
8. Tiboni M, Coppari S, Casettari L, Guescini M, Colomba M, Fratemale D, Gorassini A, Verardo G, Ramakrishna S, Guidi L, Di Giacomo B, Mari M, Molinaro R, Albertini MC. Prunus spinosa Extract Loaded in Biomimetic Nanoparticles Evokes In Vitro Anti-Inflammatory and Wound Healing Activities. *Nanomaterials (Basel).* 2020 Dec 25;11(1):36. doi: 10.3390/nano11010036.
9. Simeone P, Celia C, Bologna G, Ercolino E, Pierdomenico L, Cilurzo F, Grande R, Diomedea F, Vespa S, Canonico B, Guescini M, Stocchi V, Lotti LV, Guagnano MT, Stellan L, Papa S, Trubiani O, Marchisio M, Miscia S, Lanuti P. Diameters and Fluorescence Calibration for Extracellular Vesicle Analyses by Flow Cytometry. *Int J Mol Sci.* 2020 Oct 23;21(21):7885. doi: 10.3390/ijms21217885.
10. Cerisoli S, Marinelli Busilacchi E, Mattiucci D, Rossi E, Mariani M, Guescini M, Pugnali A, Olivieri F, Olivieri A, Poloni A. The exosomal surface phenotype and inflamma-miR cargo correlate with MDS diagnosis. *Br J Haematol.* 2020 Oct 23. doi: 10.1111/bjh.17113.
11. Rosefi C, Cifelli P, Ruffolo G, Barbieri E, Guescini M, Esposito V, Di Gennaro G, Limatola C, Giovannelli A, Aronica E, Palma E. Erythropoietin Increases GABAA Currents in Human Cortex from TLE Patients. *Neuroscience.* 2020 Jul 15;439:153-162. doi: 10.1016/j.neuroscience.2019.04.013. Epub 2019 Apr 29.
12. Mensà E, Guescini M, Giuliani A, Bacalini MG, Ramini D, Corleone G, Ferracin M, Fulgenzi G, Graciotti L, Prattichizzo F, Sorci L, Battistelli M, Monsurò V, Bonfigli AR, Cardelli M, Recchioni R, Marcheselli F, Latini S, Maggio S, Fanelli M, Amatori S, Storci G, Ceriello A, Stocchi V, De Luca M, Magnani L, Rippon MR, Procopio AD, Sala C, Budimir I, Bassi C, Negrini M, Garagnani P, Franceschi C, Sabbatinelli J, Bonafè M, Olivieri F. Small extracellular vesicles deliver miR-21 and miR-217 as pro-senescence effectors to endothelial cells. *J Extracell Vesicles.* 2020 Feb 18;9(1):1725285. doi: 10.1080/20013078.2020.1725285. eCollection 2020.
13. Annibalini G, Contarelli S, Lucertini F, Guescini M, Maggio S, Ceccaroli P, Gervasi M, Ferri Marini C, Fardetti F, Grassi E, Stocchi V, Barbieri E, Benelli P. Muscle and Systemic Molecular Responses to a Single Flywheel Based Iso-Inertial Training Session in Resistance-Trained Men. *Front Physiol.* 2019 May 9;10:554. doi: 10.3389/fphys.2019.00554. eCollection 2019.
14. Codenotti S, Faggi F, Ronca R, Chiodelli P, Grillo E, Guescini M, Megiomi F, Marampon F, Fanzani A. Caveolin-1 enhances metastasis formation in a human model of embryonal rhabdomyosarcoma through Erk signaling cooperation. *Cancer Lett.* 2019 May 1;449:135-144. doi: 10.1016/j.canlet.2019.02.013. Epub 2019 Feb 13. PMID: 30771426.
15. Maggio S, Ceccaroli P, Polidori E, Cioccoloni A, Stocchi V, Guescini M. Signal Exchange through Extracellular Vesicles in Neuromuscular Junction Establishment and Maintenance: From Physiology to Pathology. *Int J Mol Sci.* 2019 Jun 8;20(11):2804. doi: 10.3390/ijms20112804.
16. Cesarini E, Cerioni L, Canonico B, Di Sario G, Guidarelli A, Lattanzi D, Savelli D, Guescini M, Nasoni MG, Bigini N, Cuppini R, Stocchi V, Ambrogini P, Papa S, Luchetti F. Melatonin protects hippocampal HT22 cells from the effects of serum deprivation specifically targeting mitochondria. *PLoS One.* 2018 Aug 29;13(8):e0203001. doi: 10.1371/journal.pone.0203001. eCollection 2018.
17. Andreani C, Bartolacci C, Guescini M, Battistelli M, Stocchi V, Orlando F, Provinciali M, Amici A, Marchini C, Tiano L, Orlando P, Silvestri S. Combination of Coenzyme Q10 Intake and Moderate Physical Activity Counteracts Mitochondrial Dysfunctions in a SAMP8 Mouse Model. *Oxid Med Cell Longev.* 2018 Oct 24;2018:8936251. doi: 10.1155/2018/8936251. eCollection 2018.
18. Annibalini G, Contarelli S, De Santi M, Saltarelli R, Di Patria L, Guescini M, Villarini A, Brandi G, Stocchi V, Barbieri E. The intrinsically disordered E-domains regulate the IGF-1 prohormones stability, subcellular localisation and secretion. *Sci Rep.* 2018 Jun 11;8(1):8919. doi: 10.1038/s41598-018-27233-3.
19. Sestili P, Ismail T, Calcabrini C, Guescini M, Catanzaro E, Turmini E, Layla A, Akhtar S, Fimognari C. The potential effects of *Ocimum basilicum* on health: a review of pharmacological and toxicological studies. *Expert Opin Drug Metab Toxicol.* 2018 Jul;14(7):679-692. doi: 10.1080/17425255.2018.1484450. Epub 2018 Jun 11.

20. Casadei L, Calore F, Creighton CJ, Guescini M, Batte K, Iwenofu OH, Zewdu A, Braggio D, Bill KL, Fadda P, Lovat F, Lopez G, Gasparini P, Chen JL, Kladney RD, Leone G, Lev D, Croce CM, Pollock RE. Exosome-derived miR-25-3p and miR-92a-3p stimulate liposarcoma progression. *Cancer Res.* 2017 Jun 6. pii: canres.2984.2016. doi: 10.1158/0008-5472.CAN-16-2984.
21. Annibalini G, Lucertini F, Agostini D, Vallorani L, Gioacchini AM, Barbieri E, Guescini M, Casadei L, Passalia A, Del Sal M, Piccoli G, Andreani M, Federici A, and Stocchi V. Concurrent Aerobic and Resistance Training Has Anti-Inflammatory Effects and Increases Both Plasma and Leukocyte Levels of IGF-1 in Late Middle-Aged Type 2 Diabetic Patients. *Oxidative Medicine and Cellular Longevity*, vol. 2017, Article ID 3937842, 10 pages, 2017. doi:10.1155/2017/3937842.
22. Guescini M, Tiano L, Genova ML, Polidori E, Silvestri S, Orlando P, Fimognari C, Calcabrini C, Stocchi V, Sestili P. The Combination of Physical Exercise with Muscle-Directed Antioxidants to Counteract Sarcopenia: A Biomedical Rationale for Pleiotropic Treatment with Creatine and Coenzyme Q10. *Oxid Med Cell Longev.* 2017;2017:7083049. doi: 10.1155/2017/7083049. Epub 2017 Sep 20. Review.
23. Guescini M, Maggio S, Ceccaroli P, Battistelli M, Annibalini G, Piccoli G, Sestili P, Stocchi V. Extracellular Vesicles Released by Oxidatively Injured or Intact C2C12 Myotubes Promote Distinct Responses Converging toward Myogenesis. *Int J Mol Sci.* 2017 Nov 22;18(11). pii: E2488. doi: 10.3390/ijms18112488.
24. Sestili P, Ambrogini P, Barbieri E, Sartini S, Fimognari C, Calcabrini C, Diaz AR, Guescini M, Polidori E, Luchetti F, Canonico B, Lattanzi D, Cuppini R, Papa S, Stocchi V. New insights into the trophic and cytoprotective effects of creatine in in vitro and in vivo models of cell maturation. *Amino Acids.* 2016 Jan 2. [Epub ahead of print].
25. Annibalini G, Bielli P, De Santi M, Agostini D, Guescini M, Sisti D, Contarelli S, Brandi G, Villarini A, Stocchi V, Sette C, Barbieri E. MIR retroposon exonization promotes evolutionary variability and generates species-specific expression of IGF-1 splice variants. *Biochim Biophys Acta.* 2016 May;1859(5):757-68. doi: 10.1016/j.bbtagm.2016.03.014. Epub 2016 Apr 19.
26. Curzi D, Sartini S, Guescini M, Lattanzi D, Di Palma M, Ambrogini P, Savelli D, Stocchi V, Cuppini R, Falcieri E. Effect of Different Exercise Intensities on the Myotendinous Junction Plasticity. *PLoS One.* 2016 Jun 23;11(6):e0158059. doi: 10.1371/journal.pone.0158059. eCollection 2016.
27. Salucci S, Baldassarri V, Canonico B, Burattini S, Battistelli M, Guescini M, Papa S, Stocchi V, Falcieri E. Melatonin behavior in restoring chemical damaged C2C12 myoblasts. *Micros Res Tech.* 2016 Jun;79(6):532-40. doi: 10.1002/jemt.22663. Epub 2016 Apr 5.
28. Barbieri E, Guescini M, Calcabrini C, Vallorani L, Diaz AR, Fimognari C, Canonico B, Luchetti F, Papa S, Battistelli M, Falcieri E, Romanello V, Sandri M, Stocchi V, Ciacci C, Sestili P. Creatine Prevents the Structural and Functional Damage to Mitochondria in Myogenic, Oxidatively Stressed C2C12 Cells and Restores Their Differentiation Capacity. *Oxid Med Cell Longev.* 2016; 2016:5152029. doi: 10.1155/2016/5152029.
29. Battistelli M, Salucci S, Guescini M, Curzi D, Stocchi V, Falcieri E. Skeletal Muscle Cell Behavior After Physical Agent Treatments. *Curr Pharm Des.* 2015;21(25):3665-72.
30. Leo G, Guescini M, Genedani S, Stocchi V, Carone C, Filafferro M, Sisti D, Marcoli M, Maura G, Cortelli P, Guidolin D, Fuxe K, Agnati LF. Acute isoproterenol induces anxiety-like behavior in rats and increases plasma content of extracellular vesicles. *Physiol Behav.* 2015 Apr 1;142:79-84. doi: 10.1016/j.physbeh.2015.02.002. Epub 2015 Feb 2. Erratum in: *Physiol Behav.* 2015 May 1;143:169.
31. Barbieri E, Agostini D, Polidori E, Potenza L, Guescini M, Lucertini F, Annibalini G, Stocchi L, De Santi M, Stocchi V. The pleiotropic effect of physical exercise on mitochondrial dynamics in aging skeletal muscle. *Oxid Med Cell Longev.* 2015;2015:917085. doi: 10.1155/2015/917085. Epub 2015 Apr 5. Review.
32. Guescini M, Canonico B, Lucertini F, Maggio S, Annibalini G, Barbieri E, Luchetti F, Papa S, Stocchi V. Muscle Releases Alpha-Sarcoglycan Positive Extracellular Vesicles Carrying miRNAs in the Bloodstream. *PLoS One.* 2015 May 8;10(5):e0125094. doi: 10.1371/journal.pone.0125094. eCollection 2015.
33. Ceccaroli P, Saltarelli R, Polidori E, Barbieri E, Guescini M, Ciacci C, Stocchi V. Sugar transporters in the black truffle *Tuber melanosporum*: from gene prediction to functional characterization. *Fungal Genet Biol.* 2015 Aug;81:52-61. doi: 10.1016/j.fgb.2015.05.006. Epub 2015 May 25.
34. Turco AA, Guescini M, Valtucci V, Colosimo C, De Feo P, Mantuano M, Stocchi V, Riccardi G, Capaldo B. Dietary fat differentially modulate the mRNA expression levels of oxidative mitochondrial genes in skeletal muscle of healthy subjects. *Nutr Metab Cardiovasc Dis.* 2014 Feb;24(2):198-204. doi: 10.1016/j.numecd.2013.07.001.
35. Barbieri E, Sestili P, Vallorani L, Guescini M, Calcabrini C, Gioacchini AM, Annibalini G, Lucertini F, Piccoli G, Stocchi V. Mitohormesis in muscle cells: a morphological, molecular, and proteomic approach. *Muscles Ligaments Tendons J.* 2014 Feb 24;3(4):254-66.
36. Annibalini G, Agostini D, Calcabrini C, Martinelli C, Colombo E, Guescini M, Tibollo P, Stocchi V, Sestili P. Effects of sex hormones on inflammatory response in male and female vascular endothelial cells. *J Endocrinol Invest.* 2014 Sep;37(9):861-9. doi: 10.1007/s40618-014-0118-1.
37. Vera-Lozada G, Scholl V, Barros MH, Sisti D, Guescini M, Stocchi V, Stefanoff CG, Hassan R. Analysis of biological and technical variability in gene expression assays from formalin-fixed paraffin-embedded classical Hodgkin lymphomas. *Exp Mol Pathol.* 2014 Dec;97(3):433-9. doi: 10.1016/j.yexmp.2014.09.014.
38. Guescini M, Sisti D, Rocchi MB, Panebianco R, Tibollo P, Stocchi V. Accurate and precise DNA quantification in the presence of different amplification efficiencies using an improved Cy0 method. *PLoS One.* 2013 Jul 8;8(7):e68481. doi: 10.1371/journal.pone.0068481.
39. Fratemale D, Ricci D, Calcabrini C, Guescini M, Martinelli C, Sestili P. Cytotoxic activity of essential oils of aerial parts and ripe fruits of *Echinophora spinosa* (Apiaceae). *Nat Prod Commun.* 2013 Nov;8(11):1645-9.
40. Guescini M, Leo G, Genedani S, Carone C, Pederzoli F, Ciruela F, Guidolin D, Stocchi V, Mantuano M, Borroto-Escuela DO, Fuxe K, Agnati LF. Microvesicle and tunneling nanotube mediated intercellular transfer of g-protein coupled receptors in cell cultures. *Exp Cell Res.* 2012 Mar 10;318(5):603-13. Epub 2012 Jan 11.
41. Annibalini G, Guescini M, Agostini D, Matteis RD, Sestili P, Tibollo P, Mantuano M, Martinelli C, Stocchi V. The expression analysis of mouse interleukin-6 splice variants argued against their biological relevance. *BMB Rep.* 2012 Jan;45(1):32-7.
42. Barbieri E, Schiavano GF, De Santi M, Vallorani L, Casadei L, Guescini M, Gioacchini AM, Rinaldi L, Stocchi V,

- Brandi G. Bacterial diversity of traditional Fossa (pit) cheese and its ripening environment. *International Dairy Journal* (2012) 23 62-67.
43. Luchetti F, Canonico B, Arcangeletti M, Guescini M, Cesarini E, Stocchi V, Degli Esposti M, Papa S. Fas signalling promotes intercellular communication in T cells. *PLoS One*. 2012;7(4):e35766.
 44. Agnati LF, Guidolin D, Guescini M, Battistin L, Stocchi V, De Caro R, Genedani S, Fuxe K. Aspects on the integrative actions of the brain from neural networks to "brain-body medicine". *J Recept Signal Transduct Res*. 2012 Aug;32(4):163-80.
 45. De Matteis R, Lucertini F, Guescini M, Polidori E, Zeppa S, Stocchi V, Cinti S, Cuppini R. Exercise as a new physiological stimulus for brown adipose tissue activity. *Nutr Metab Cardiovasc Dis*. 2012 May 25.
 46. Fuxe K, Borroto-Escuela DO, Romero-Fernandez W, Diaz-Cabiale Z, Rivera A, Ferraro L, Tanganelli S, Tarakanov AO, Garriga P, Narváez JA, Ciruela F, Guescini M, Agnati LF. Extrasynaptic neurotransmission in the modulation of brain function. Focus on the striatal neuronal-glia networks. *Front Physiol*. 2012;3:136
 47. Barbieri E, Battistelli M, Casadei L, Vallorani L, Piccoli G, Guescini M, Gioacchini AM, Polidori E, Zeppa S, Ceccaroli P, Stocchi L, Stocchi V, Falcieri E. Morphofunctional and Biochemical Approaches for Studying Mitochondrial Changes during Myoblasts Differentiation. *J Aging Res*. 2011;2011:845379. Epub 2011 May 10.
 48. Agnati LF, Guidolin D, Leo G, Guescini M, Pizzi M, Spano PF, Ghidoni R, Ciruela F, Genedani S, and Fuxe K. Possible new targets for GPCR modulation: allosteric interactions, plasma membrane domains, intercellular transfer and epigenetic mechanisms. *J Recept Signal Transduct Res*. 2011 Oct;31(5):315-31
 49. Guidolin D, Albertin G, Guescini M, Fuxe K, Agnati LF. Central Nervous System and Computation. *The Quarterly Review of Biology* 2011, 86 (4), 265-285
 50. Potenza L, Calcabrini C, De Bellis R, Guescini M, Mancini U, Cucchiari L, Nappo G, Alloni R, Coppola R, Dugo L, Dacha M. Effects of oxidative stress on mitochondrial content and integrity of human anastomotic colorectal dehiscence: A preliminary DNA study. *Can J Gastroenterol*. 2011 Aug;25(8):433-9.
 51. Canonico B, Luchetti F, Arcangeletti M, Guescini M, Degli Esposti M, Papa S. Flow cytometric analyses disclose intercellular communications in FasL-stimulated T cells: Results and trouble shooting. *Cytometry A*. 2011 Oct 11. doi: 10.1002/cyto.a.21151.
 52. Agnati LF, Barlow PW, Baluška F, Tonin P, Guescini M, Leo G, Fuxe K. A new theoretical approach to the functional meaning of sleep and dreaming in humans based on the maintenance of 'predictive psychic homeostasis'. *Commun Integr Biol*. 2011 Nov 1;4(6):640-54
 53. Guescini M, Genedani S, Stocchi V and Agnati LF. Astrocytes and Glioblastoma cells release exosomes carrying mtDNA. *J Neural Transm*. 2010 Jan;117(1):1-4. DOI 10.1007/s00702-009-0288-8.
 54. Fuxe K, Dahlström A, Jonsson G, Marcellino D, Guescini M, Dam M, Manger P and Agnati LF. THE DISCOVERY OF CENTRAL DOPAMINE, NORADRENALINE AND 5-HYDROXYTRYPTAMINE NEURONS GAVE VOLUME TRANSMISSION TO THE WIRED BRAIN. *Progress in Neurobiology* 2010 Feb 9;90(2):82-100. Epub 2009 Oct 21.
 55. Casadei L, Vallorani L, Gioacchini AM, Guescini M, Burattini S, D'Emilio A, Biagiotti L, Falcieri E and Stocchi V. Proteomics-based investigation in C2C12 myoblast differentiation. *European Journal of Histochemistry* 2010 53(4):261-8.
 56. Fern P, Barbieri E, Burattini S, Guescini M, D'Emilio A, Biagiotti L, Del Grande P, De Luca A, Stocchi V, and Falcieri E. Expression and Subcellular Localization of MyogenicRegulatory Factors During the Differentiation of Skeletal Muscle C2C12 Myoblasts. *J Cell Biochem*. 2009 Dec 15;108(6):1302-17.
 57. Fatone C, Guescini M, Balducci S, Battistoni S, Settequattrini A, Pippi R, Stocchi L, Mantuano M, Stocchi V, De Feo P. TWO WEEKLY SESSIONS OF COMBINED AEROBIC AND RESISTANCE EXERCISE ARE SUFFICIENT TO PROVIDE BENEFICIAL EFFECTS IN SUBJECTS WITH TYPE 2 DIABETES MELLITUS AND METABOLIC SYNDROME. *J Endocrinol Invest*. 2010 Feb 5.
 58. Fuxe K, Marcellino D, Borroto-Escuela DO, Guescini M, Fernández-Dueñas V, Tanganelli S, Rivera A, Ciruela F, Agnati LF. Adenosine-Dopamine Interactions in the Pathophysiology and Treatment of CNS Disorders. *CNS Neurosci Ther*. 2010 Jun;16(3):e18-42. doi: 10.1111/j.1755-5949.2009.00126.x.
 59. Agnati LF, Guidolin D, Guescini M, Genedani S, Fuxe K. Understanding wiring and volume transmission. *Brain Res Rev*. 2010 Sep;64(1):137-59. doi: 10.1016/j.brainresrev.2010.03.003.
 60. Guescini M, Guidolin D, Vallorani L, Casadei L, Gioacchini AM, Tibollo P, Battistelli M, Falcieri E, Battistin L, Agnati LF, Stocchi V. C2C12 MYOBLASTS RELEASE MICRO-VESICLES CONTAINING mtDNA AND PROTEINS INVOLVED IN SIGNAL TRANSDUCTION. *Exp Cell Res*. 2010 Jul 15;316(12):1977-84. doi: 10.1016/j.yexcr.2010.04.006.
 61. Sisti D, Guescini M, Rocchi MBL, Tibollo P, D'Atri M, Stocchi V. Shape based genetic outlier detection in real-time PCR. *BMC Bioinformatics* 2010 Apr 12;11:186.
 62. Guidolin D, Ciruela F, Genedani S, Guescini M, Tortorella C, Albertin G, Fuxe K, Agnati LF. Bioinformatics and mathematical modelling in the study of receptor-receptor interactions and receptor oligomerization Focus on adenosine receptors. *Biochim Biophys Acta*. 2011 May;1808(5):1267-83.
 63. Gioacchini AM, De Santi M, Guescini M, Brandi G, Stocchi V. Characterization of the volatile organic compounds of Italian 'Fossa' cheese by solid-phase microextraction gas chromatography/mass spectrometry. *Rapid Commun Mass Spectrom*. 2010 Dec 15;24(23):3405-12.
 64. Guescini M, Stocchi L, Sisti D, Zeppa S, Polidori E, Ceccaroli P, Saltarelli R and Stocchi V. Characterization and mRNA expression profile of the *TbNre1* gene of the ectomycorrhizal fungus *Tuber borchii*. *Curr Genet*. 2009 Feb;55(1):59-68. Epub 2008 Dec 30. DOI: 10.1007/s00294-008-0222-x
 65. Sestili P, Barbieri E, Martinelli C, Battistelli M, Guescini M, Vallorani L, Casadei L, D'Emilio A, Falcieri E, Piccoli G, Agostani D, Annibalini G, Paolillo M, Gioacchini AM and Stocchi V. Creatine supplementation prevents the inhibition of myogenic differentiation in oxidatively injured C2C12 murine myoblasts. *Mol. Nutr. Food Res*. 2009, 53, 000 – 000 DOI 10.1002/mnfr.200800504.
 66. Guescini M, Sisti D, Rocchi MBL, Stocchi L, Stocchi V. A new real-time PCR method to overcome significant quantitative inaccuracy due to slight amplification inhibition. *BMC Bioinformatics* 2008, 9:326 doi:10.1186/1471-2105-9-326
 67. Gioacchini AM, Menotta M, Guescini M, Saltarelli R, Ceccaroli P, Amicucci A, Barbieri E, Giomaro G and Stocchi V.

- Geographical traceability of Italian white truffle (*Tuber magnatum* Pico) by the analysis of volatile organic compounds. *Rapid Commun. Mass Spectrom.* 2008; 22: 3147–3153 doi: 10.1002/rcm.3714
68. Ceccaroli P, Saltarelli R, Guescini M, Polidori E, Buffalini M, Menotta M, Pierleoni R, Barbieri E, Stocchi V. Identification and characterization of the *Tuber borchii*-mannitol dehydrogenase which defines a new subfamily within the polyol-specific medium chain dehydrogenases. *Fungal Genet Biol.* 2007 Oct;44(10):965-78. Epub 2007 Jan 10.
 69. Guescini M, Fatone C, Stocchi L, Guidi C, Potenza L, Ditoiolo M, Ranchelli A, Di Loreto C, Sisti D, De Feo P, Stocchi V. Fine needle aspiration coupled with real-time PCR: A painless methodology to study adaptive functional changes in skeletal muscle. *Nutr Metab Cardiovasc Dis.* 2007 Jun;17(5):383-93. Epub 2007 May 7. <http://www.f1000biology.com/article/doi/1084753/evaluation>
 70. Guescini M, Stocchi L, Fatone C, Di Loreto C, De Feo P and Stocchi V. Molecular modifications induced by physical exercise: a significant role in disease prevention. (Eds Stocchi, De Feo, Hood, Springer 2007), pp 83-99.
 71. Guidi C, Potenza L, Sestili P, Martinelli C, Guescini M, Stocchi L, Zeppa S, Polidori E, Annibalini G, Stocchi V. Differential effect of creatine on oxidatively-injured mitochondrial and nuclear DNA. *Biochim Biophys Acta.* 2008 Jan;1780(1):16-26. Epub 2007 Oct 5.
 72. Guescini M, Zeppa S, Pierleoni R, Sisti D, Stocchi L, Stocchi V. The expression profile of the *Tuber borchii* nitrite reductase suggests its positive contribution to host plant nitrogen nutrition. *Curr Genet.* 2007 Jan;51(1):31-41. Epub 2006 Nov 3.
 73. Cuppini R, Sartini S, Agostini D, Guescini M, Ambrogini P, Betti M, Bestini L, Vallasciani M and Stocchi V. BDNF expression in rat skeletal muscle after acute or repeated exercise. *Archives Italiennes de Biologie* 2007 May; 145(2):99-110.
 74. Polidori E, Ceccaroli P, Saltarelli R, Guescini M, Menotta M, Agostini D, Palma F, Stocchi V. Hexose uptake in the plant symbiotic ascomycete *Tuber borchii* Vittadini: biochemical features and expression pattern of the transporter TBHXT1. *Fungal Genet Biol.* 2007 Mar;44(3):187-98. Epub 2006 Sep 26.
 75. Zeppa S, Guidi C, Barbieri E, Guescini M, Polidori E, Agostini D, Stocchi V. Molecular characterisation of a *Tuber borchii* Smt3 gene. *Plant Physiol Biochem.* 2006 Jul-Sep;44(7-9):506-10. Epub 2006 Aug 22.
 76. Guidi C, Zeppa S, Annibalini G, Pierleoni R, Guescini M, Buffalini M, Zambonelli A, Stocchi V. The isoprenoid pathway in the ectomycorrhizal fungus *Tuber borchii* Vittad.: cloning and characterisation of the *tbmgr*, *tbpps* and *tbsqs* genes. *Curr Genet.* 2006 Dec;50(6):393-404. Epub 2006 Sep 8.
 77. Zeppa S, Sisti D, Pierleoni R, Potenza L, Guescini M, Vallorani L and Stocchi V. *Tilia platyphyllos* Scop.-*Tuber brumale* Vittad. vs *T. platyphyllos* Scop.-*T. borchii* Vittad. ectomycorrhizal systems: a comparison of structural and functional traits. *Plant Physiology and Biochemistry* 43: 709-716, 2005.
 78. Giomaro G, Sisti D, Amicucci A, Guidi C, Menotta M, Polidori E, Pierleoni R, Zeppa S, Gioacchini AM, Guescini M, Stocchi V. Sintesi micorrizica in vitro fra piante forestali e funghi del genere *Tuber*: un modello per lo studio dei meccanismi morfologici e molecolari coinvolti nel processo di micorizzazione. *Informatore Botanico Italiano*, 37(x, sup.1 parte 1) 2005.
 79. Zeppa S, Gioacchini AM, Guidi C, Guescini M, Pierleoni R, Zambonelli A and Stocchi V. Determination of specific volatile organic compounds synthesised during *Tuber borchii* fruit body development by solid phase microextraction and gas chromatography/mass spectrometry. *Rapid communication in mass spectrometry* 18: 199-205, 2004.
 80. Ceccaroli P, Pierleoni R, Guescini M, Saltarelli R, Polidori E, Buffalini M and V Stocchi. Carbohydrate and nitrogen metabolism in the ectomycorrhizal fungus *Tuber borchii* Vittad. *Recent Res Devel. Microbiology* 8:201-217, 2004.
 81. Guescini M, Pierleoni R, Palma F, Vallorani L, Zeppa S, Sacconi C, Potenza L, Giomaro G and Stocchi V. Characterization of the *Tuber borchii* nitrate reductase gene and its role in ectomycorrhizae. *Molecular Genetics and Genomics* vol. 269: 807-816, 2003.
 82. Zeppa S, Potenza L, Vallorani L, Guescini M, Ciampela P and Stocchi V. Evaluation of transcript level and biomass during mycelial development of the truffle *Tuber borchii*. *Biotechnology Letters* vol. 23: 17-20, 2001.
 83. Zeppa S, Potenza L, Polidori E, Guescini M, Agostani D, Giomaro G and Stocchi V. Cloning and characterisation of a polyubiquitin gene from the ectomycorrhizal fungus *Tuber borchii* Vittad. *Current Genetics* vol. 40: 49-53, 2001.
 84. Cesari P, Zeppa S, Ceccaroli P, Potenza L, Saltarelli R, Ciampela C, Guescini M, and Stocchi V. Intraspecific variability in four mycelium strains of the ectomycorrhizal fungus *Tuber borchii*. *Actes du Ve Congres International, Science et Culture de la Truffe*, 4-6 Mars 1999 Aix-En-Provence (France), pp. 2.51-2.54, 2001.
 85. Zeppa S, Guescini M, Potenza L, Agostani D, Polidori E and Stocchi V. Analysis of gene expression in the vegetative and fructification phases of the white truffle *Tuber borchii* Vittad. by mRNA Differential Display. *Biotechnology Letters* vol. 22: 307-312, 2000.
 86. Zeppa S, Vallorani L, Potenza L, Bernardini F, Pieretti B, Guescini M, Giomaro G and Stocchi V. Estimation of fungal biomass and transcript levels in *Tuber borchii*-*Tilia platyphyllos* ectomycorrhizae. *FEMS Microbiology Letters* vol. 188(2): 119-124, 2000.

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Urbino, 16 February 2022

Michele Guescini