

Dr. Guglielmo Duranti, PhD

Assistant professor

05/E1 – Biochemistry – SSD: BIO/10

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Guglielmo Duranti is Assistant Professor (art. 24, paragraph 3, lett. b), L. 240/2010, 05/E1 - General Biochemistry - SSD BIO/10 – Biochemistry), at the Department of Movement, Human and Health Sciences of the University of Rome "Foro Italico" and belongs to Laboratory of Biochemistry and Molecular Biology of the Biology, Genetics and Biochemistry Unit. He graduated in Biological Sciences in 1999 at the University of Rome TRE, he obtained the title of PhD in "Biochemistry and Molecular Biology" in 2005 at the University of Rome "Tor Vergata". He obtained the National Scientific Qualification for the functions of Associate Professor in 05/E1- General Biochemistry for the period from 03-02-2022 to 03-02-2031.

Main research topics:

He carries out research at the Laboratory of Biochemistry and Molecular Biology belonging to the Unit of Biology, Genetics and Biochemistry on the following research topics:

- cellular and molecular mechanisms underlying skeletal muscle cell differentiation;
- homeostasis of the redox status both in "in vitro" studies on muscle cell models and "in vivo" in the response to exercise;
- polyamine metabolism in skeletal muscle in physiological and atrophic conditions both "in vitro" and "in vivo" on mouse models;
- effect of supplementation with antioxidant molecules of natural origin both in "in vitro" studies on muscle cell models and "in vivo" in the response to exercise;
- effect of the phosphodiesterase-5 inhibitor Tadalafil on plasma redox status and markers of exercise-induced muscle damage.

Teaching assignments (Biochemistry):

University of Rome "Foro Italico"

- Bachelor's degree in "Sport and movement sciences" (Scienze motorie e sportive - L22-P01)
- Master's degree in "Health and physical activity" (Attività motorie preventive ed adattate - LM67)
- Master's degree in "Sport sciences and techniques" (Scienza e tecnica dello sport - LM68)
- Elective training activity "Basic methodologies for biochemical sciences" (Metodologie di base per le scienze biochimiche - AFS319)

Publications (2011-2022):

Duranti G, Ceci R, Di Luigi L, Antinozzi C, Dimauro I, Sabatini S, Cervelli M, Sgrò P. EFFECT OF TADALAFIL ADMINISTRATION ON REDOX HOMEOSTASIS AND POLYAMINE LEVELS IN HEALTHY MEN WITH HIGH LEVEL OF PHYSICAL ACTIVITY. *Int J Environ Res Public Health*. 2021 Sep 22;18(19):9962. doi: 10.3390/ijerph18199962. ISSN: 16617827. SCOPUS: 2-s2.0-85115407639. WOS:n.d.. (primo autore, autore corrispondente)

Dimauro I, Grazioli E, Antinozzi C, **Duranti G**, Arminio A, Mancini A, Greco EA, Caporossi D, Parisi A, Di Luigi L. ESTROGEN-RECEPTOR-POSITIVE BREAST CANCER IN POSTMENOPAUSAL WOMEN: THE ROLE OF BODY COMPOSITION AND PHYSICAL EXERCISE. *Int J Environ Res Public Health*. 2021 Sep 18;18(18):9834. doi: 10.3390/ijerph18189834. ISSN: 16617827. SCOPUS: 2-s2.0-85115110366. WOS:000699863000001.

Duranti G, Maldini M, Crognale D, Horner K, Dimauro I, Sabatini S, Ceci R. MORINGA OLEIFERA LEAF EXTRACT UPREGULATES NRF2/HO-1 EXPRESSION AND AMELIORATES REDOX STATUS IN C2C12 SKELETAL MUSCLE CELLS. *Molecules*. 2021, 26(16), 5041. doi: 10.3390/molecules26165041. ISSN: 14203049. SCOPUS: 2-s2.0-85113439492. WOS:000690251500001. (primo autore, autore corrispondente)

Dorelli B, Gallè F, De Vito C, **Duranti G**, Iachini M, Zaccarin M, Preziosi Standoli J, Ceci R, Romano F, Liguori G, Spica VR, Sabatini S, Valeriani F, Cattaruzza MS. CAN PHYSICAL ACTIVITY INFLUENCE HUMAN GUT MICROBIOTA COMPOSITION INDEPENDENTLY OF DIET? A SYSTEMATIC REVIEW. *Nutrients*. 2021, 13(6), 1890. doi: 10.3390/nu13061890. ISSN: 20726643. SCOPUS: 2-s2.0-85106721891. WOS:000666421400001. (autore corrispondente)

Duranti G, Maldini M, Crognale D, Sabatini S, Corana F, Horner K, Ceci R. MORINGA OLEIFERA LEAF EXTRACT INFLUENCES OXIDATIVE METABOLISM IN C2C12 MYOTUBES THROUGH SIRT1-PPAR α PATHWAY. *Phytomedicine PLUS*. 2021. 1; 100014. doi: 10.1016/j.phyplu.2020.100014. ISSN: 26670313 (primo autore, autore corrispondente)

Reinoso-Sánchez JF, Baroli G, **Duranti G**, Scaricamazza S, Sabatini S, Valle C, Morlando M, Casero RA Jr, Bozzoni I, Mariottini P, Ceci R, Cervelli M. EMERGING ROLE FOR LINEAR AND CIRCULAR SPERMINE OXIDASE RNAs IN SKELETAL MUSCLE PHYSIOPATHOLOGY. *Int J Mol Sci*. 2020 Nov 3;21(21):8227. doi: 10.3390/ijms21218227. ISSN: 16616596. SCOPUS: 2-s2.0-85095722097. WOS:000588914400001.

Bazzucchi I, Patrizio F, Ceci R, **Duranti G**, Sabatini S, Sgrò P, Di Luigi L, Sacchetti M. QUERCETIN SUPPLEMENTATION IMPROVES NEUROMUSCULAR FUNCTION RECOVERY FROM MUSCLE DAMAGE. *Nutrients*. 2020 Sep 17;12(9):2850, 1-12. doi: 10.3390/nu12092850. ISSN: 20726643. SCOPUS: 2-s2.0-85091168068.

Di Luigi L, **Duranti G**, Antonioni A, Sgrò P, Ceci R, Crescioli C, Sabatini S, Lenzi A, Caporossi D, Del Galdo F, Dimauro I, Antinozzi C. THE PHOSPHODIESTERASE TYPE 5 INHIBITOR SILDENAFIL IMPROVES DNA STABILITY AND REDOX HOMEOSTASIS IN SYSTEMIC SCLEROSIS FIBROBLASTS EXPOSED TO REACTIVE OXYGEN SPECIES. *Antioxidants (Basel)*. 2020 Aug 25;9(9):E786. doi: 10.3390/antiox9090786. ISSN: 20763921. SCOPUS: 2-s2.0-85089851228. (primo autore)

Di Luigi L, Sgrò P, **Duranti G**, Sabatini S, Caporossi D, Del Galdo F, Dimauro I, Antinozzi C. SILDENAFIL REDUCES EXPRESSION AND RELEASE OF IL-6 AND IL-8 INDUCED BY REACTIVE OXYGEN SPECIES IN SYSTEMIC SCLEROSIS FIBROBLASTS. *Int J Mol Sci*. 2020 Apr 30;21(9). pii: E3161. doi: 10.3390/ijms21093161. ISSN:14220067. SCOPUS: 2-s2.0-85084277031.

Ceci R, **Duranti G**, Di Filippo ES, Bondi D, Verratti V, Doria C, Caporossi D, Sabatini S, Dimauro I, Pietrangelo T. ENDURANCE TRAINING IMPROVES PLASMA SUPEROXIDE DISMUTASE ACTIVITY

IN HEALTHY ELDERLY. *Mech Ageing Dev.* 2019 Nov 22;185:111190. doi: 10.1016/j.mad.2019.111190. ISSN: 00476374. SCOPUS: 2-s2.0-85075554976. (primo autore)

Bazzucchi I, Patrizio F, Ceci R, **Duranti G**, Sgrò P, Sabatini S, Di Luigi L, Sacchetti M, Felici F. THE EFFECTS OF QUERCETIN SUPPLEMENTATION ON ECCENTRIC EXERCISE-INDUCED MUSCLE DAMAGE. *Nutrients.* 2019 Jan 21;11(1). pii: E205. doi:10.3390/nu11010205. ISSN:20726643. SCOPUS:2-s2.0-85060381439.

Magi F, Dimauro I, Margheritini F, **Duranti G**, Mercatelli N, Fantini C, Ripani FR, Sabatini S, Caporossi D. TELOMERE LENGTH IS INDEPENDENTLY ASSOCIATED WITH AGE, OXIDATIVE BIOMARKERS, AND SPORT TRAINING IN SKELETAL MUSCLE OF HEALTHY ADULT MALES. *Free Radic Res.* 2018 Jun;52(6):639-647. doi:10.1080/10715762.2018.1459043. ISSN:10715762. SCOPUS:2-s2.0-85045252999

Duranti G, Ceci R, Patrizio F, Sgrò P, Di Luigi L, Sabatini S, Felici F, Bazzucchi I. CHRONIC CONSUMPTION OF QUERCETIN REDUCES ERYTHROCYTES OXIDATIVE DAMAGE: EVALUATION AT RESTING AND AFTER ECCENTRIC EXERCISE IN HUMANS. *Nutr Res.* 2018 Feb;50:73-81. doi:10.1016/j.nutres.2017.12.002. ISSN:2715317. SCOPUS:2-s2.0-85040367120 (primo autore)

Patrizio F, Ditroilo M, Felici F, **Duranti G**, De Vito G, Sabatini S, Sacchetti M, Bazzucchi I. THE ACUTE EFFECT OF QUERCETIN ON MUSCLE PERFORMANCE FOLLOWING A SINGLE RESISTANCE TRAINING SESSION. *Eur J Appl Physiol.* 2018 May;118(5):1021-1031. doi:10.1007/s00421-018-3834-y. ISSN:14396319. SCOPUS:2-s2.0-85047347459

Cervelli M, Leonetti A, **Duranti G**, Sabatini S, Ceci R, Mariottini P. SKELETAL MUSCLE PATHOPHYSIOLOGY: THE EMERGING ROLE OF SPERMINE OXIDASE AND SPERMIDINE. *Med Sci (Basel).* 2018 Feb 14;6(1). pii: E14. doi:10.3390/medsci6010014. ISSN:20763271

de Perini A, Dimauro I, **Duranti G**, Fantini C, Mercatelli N, Ceci R, Di Luigi L, Sabatini S, Caporossi D. THE p75NTR-MEDIATED EFFECT OF NERVE GROWTH FACTOR IN L6C5 MYOGENIC CELLS. *BMC Res Notes.* 2017 Dec 4;10(1):686. doi:10.1186/s13104-017-2994-x. ISSN:17560500. SCOPUS:2-s2.0-85037171972

Ceci R, **Duranti G**, Sgrò P, Sabatini S, Di Luigi L. ACUTE TADALAFIL ADMINISTRATION INCREASES PLASMA FATTY ACIDS WITHOUT CHANGES IN THE INFLAMMATORY RESPONSE IN HEALTHY MEN. *Acta Biochim Pol.* 2017 Dec 5. doi:10.18388/abp.2017_2205. ISSN:0001527X. SCOPUS:2-s2.0-85039168965 (primo autore)

Di Luigi L, Sansone M, Sansone A, Ceci R, **Duranti G**, Borrione P, Crescioli C, Sgrò P, Sabatini S. PHOSPHODIESTERASE TYPE 5 INHIBITORS, SPORT AND DOPING. *Curr Sports Med Rep.* 2017 Nov/Dec;16(6):443-447. doi:10.1249/JSR.0000000000000422. ISSN:1537890X. SCOPUS:2-s2.0-85033433895

Colamartino M, **Duranti G**, Ceci R, Sabatini S, Testa A, Cozzi R. A MULTI-BIOMARKER ANALYSIS OF THE ANTIOXIDANT EFFICACY OF PARKINSON'S DISEASE THERAPY. *Toxicol In Vitro.* 2017 Oct 26;47:1-7. doi:10.1016/j.tiv.2017.10.020. ISSN:08872333. SCOPUS:2-s2.0-85032790298 (primo autore)

Duranti G, Ceci R, Sgrò P, Sabatini S, Di Luigi L. INFLUENCE OF THE PDE5 INHIBITOR TADALAFIL ON REDOX STATUS AND ANTIOXIDANT DEFENSE SYSTEM IN C2C12 SKELETAL MUSCLE CELLS. *Cell Stress Chaperones.* 2017 May;22(3):389-396. doi:10.1007/s12192-017-0778-9. ISSN:13558145. SCOPUS:2-s2.0-85019999591 (primo autore)

Ceci R, **Duranti G**, Leonetti A, Pietropaoli S, Spinozzi F, Marcocci L, Amendola R, Cecconi F, Sabatini S, Mariottini P, Cervelli M. ADAPTIVE RESPONSES OF HEART AND SKELETAL MUSCLE TO SPERMINE OXIDASE OVEREXPRESSION: EVALUATION OF A NEW TRANSGENIC MOUSE

MODEL. *Free Radic Biol Med.* 2017 Feb;103:216-225. doi:10.1016/j.freeradbiomed.2016.12.040. ISSN:08915849. SCOPUS:2-s2.0-85007593471 (primo autore)

Ceci R, **Duranti G**, Sgrò P, Sansone M, Guidetti L, Baldari C, Sabatini S, Di Luigi L. "EFFECTS OF TADALAFIL ADMINISTRATION ON PLASMA MARKERS OF EXERCISE-INDUCED MUSCLE DAMAGE, IL6 AND ANTIOXIDANT STATUS CAPACITY." *Eur J Appl Physiol.* 2015 Mar;115(3):531-9. doi:10.1007/s00421-014-3040-5. ISSN:14396319. SCOPUS:2-s2.0-84925539315 (primo autore)

Colamartino M, Santoro M, **Duranti G**, Sabatini S, Ceci R, Testa A, Padua L, Cozzi R. "EVALUATION OF LEVODOPA AND CARBIDOPA ANTIOXIDANT ACTIVITY IN NORMAL HUMAN LYMPHOCYTES IN VITRO: IMPLICATION FOR OXIDATIVE STRESS IN PARKINSON'S DISEASE." *Neurotox Res.* 2015 Feb;27(2):106-17. doi:10.1007/s12640-014-9495-7. ISSN:10298428. SCOPUS:2-s2.0-84921371017

Ceci R, Beltran Valls MR, **Duranti G**, Dimauro I, Quaranta F, Pittaluga M, Sabatini S, Caserotti P, Parisi P, Parisi A, Caporossi D. "OXIDATIVE STRESS RESPONSES TO A GRADED MAXIMAL EXERCISE TEST IN OLDER ADULTS FOLLOWING EXPLOSIVE-TYPE RESISTANCE TRAINING." *Redox Biology* 2013. Dec;(2): 65-72. doi:10.1016/j.redox.2013.12.004. ISSN:22132317. SCOPUS:2-s2.0-84891416161

Beltran Valls MR, Dimauro I, Brunelli A, Tranchita E, Ciminelli E, Caserotti P, **Duranti G**, Sabatini S, Parisi P, Parisi A, Caporossi D. "EXPLOSIVE TYPE OF MODERATE-RESISTANCE TRAINING INDUCES FUNCTIONAL, CARDIOVASCULAR, AND MOLECULAR ADAPTATIONS IN THE ELDERLY." *Age (Dordr).* 2013. Apr; 36(2): 759-72. doi:10.1007/s11357-013-9584-1. ISSN:15744647. SCOPUS:2-s2.0-84898629185

Ceci R, **Duranti G**, Rossi A, Savini I, Sabatini S. "SKELETAL MUSCLE DIFFERENTIATION: ROLE OF DEHYDROEPIANDROSTERONE SULFATE." *Horm Metab Res.* 2011 Sep;43(10):702-7. doi:10.1055/s-0031-1285867. ISSN:00185043. SCOPUS:2-s2.0-80052960574 (primo autore)

Sabatini S, Sgrò P, **Duranti G**, Ceci R, Di Luigi L. "TADALAFIL ALTERS ENERGY METABOLISM IN C2C12 SKELETAL MUSCLE CELLS." *Acta Biochim Pol.* 2011;58(2):237-41. ISSN:0001527X. SCOPUS:2-s2.0-79960133580