

## CURRICULUM VITAE

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### General information **Simona Boncompagni**

Researcher unique identifier:

**ORCID:** 0000-0001-5308-5069

Date of Birth: 12 January 1974

Place of Birth: Sansepolcro (AR), Italy

Status: Married

Office Address: CAST, Center for Advanced Technological Studies, room 458  
*G. D'Annunzio University, Chieti I-66100 Italy*

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### Current Position:

March 2020

#### **Associate Professor of Physiology**

DNICS - Dept. of Neuroscience, Imaging and Clinical Sciences  
*G. d'Annunzio University, Chieti I-66100 Italy*

### Bibliometric Parameters (up to 2019)

Peer Reviewed Original Articles: **63**

H index : **27**

Total number of Citations: **2389**

### Education:

2000

**Laurea in Chimica** (110/110 e lode).  
Studi of Perugia University - Italy

2006

#### **Ph.D. - Degree in Physiopathology of Muscle**

Department of Basic and Applied Medical Sciences,  
Ce.S.I. Center of Research on Aging;  
*G. D'Annunzio University, Chieti I-66100 Italy*  
Supervisor: Prof. Feliciano Protasi

### Previous Position:

2003 – 2006

#### **Ph.D. Student**

Department of Basic and Applied Medical Sciences,  
Ce.S.I. Center of Research on Aging;  
*G. D'Annunzio University, Chieti I-66100 Italy.*  
Supervisor: Prof. Feliciano Protasi

2006 – 2009

#### **Post-Doctoral Fellow**

Department of Basic and Applied Medical Sciences,  
Ce.S.I. Center of Research on Aging;  
*G. D'Annunzio University, Chieti I-66100 Italy*

2009 – 2014

#### **Researcher TD (Moratti)**

DNICS - Dept. of Neuroscience, Imaging and Clinical Sciences,  
*G. D'Annunzio University, Chieti I-66100 Italy*

2014 – 2017

#### **Researcher TD type A (Junior, Research Fellow Equivalent) SSD BIO/09 - Physiology**

DNICS - Dept. of Neuroscience, Imaging and Clinical Sciences  
*G. D'Annunzio University, Chieti I-66100 Italy*

2017 – 2019

#### **Researcher TD type B (Senior, Assistant Professor Equivalent) SSD BIO/09 - Physiology**

DNICS - Dept. of Neuroscience, Imaging and Clinical Sciences  
*G. d'Annunzio University, Chieti I-66100 Italy*

**Fellowships:**

2006 - 2011

**Visiting Researcher**

University of Pennsylvania School of Medicine  
 Dept. of Cell and Developmental Biology  
 Philadelphia, PA - USA (laboratory of Prof. Clara Franzini-Armstrong)

**Teaching Activities and other appointments:**

from 2011

**Lecturer of Human Physiology and Neurophysiology**

Faculty of Medicine and Surgery, **Degree in Physiotherapy**  
 School of Medicine and Health Sciences. *G. d'Annunzio Univ.*, Chieti –Italy

from 2015

**Lecturer of Human Physiology**

Faculty of Medicine and Surgery, **Degree in Radioterapy**  
 School of Medicine and Health Sciences. *G. d'Annunzio Univ.*, Chieti –Italy

from 2019

**Lecturer of Human Physiology and Neurophysiology**

Faculty of Medicine and Surgery, **Degree in Orthoptic and Ophthalmologic Assistance**  
 School of Medicine and Health Sciences. *G. d'Annunzio Univ.*, Chieti –Italy

from 2017

**Committee member of PhD scholarship**

Course: Medical Biotechnology. School of Medicine and Health Sciences  
*G. d'Annunzio Univ.*, Chieti –Italy

from 2019

**Committee member of UdA University Research**

Università degli *Studi G. D'Annunzio* di Chieti-Pescara.

**Funding history:**

2014 - 2017

**FIRB-Futuro in Ricerca 2013 – MIUR** (Project: RBFR13A20K)

Multi-center project

Title of the project: *Structural and functional alterations in Central Core Disease (CCD): understand molecular genetic background to develop therapeutic interventions*. Role: Principal Investigator and Coordinator (587.561,31 euro/3 years)

2015 - 2018

**Ricerca Finalizzata - Italian Ministry of Health** (Project: GR-2011-2352681)

Title of the project: *Central core Disease: understand the molecular mechanisms leading to mitochondrial damage in cores to develop effective pharmacological treatments*. Role: Principal Investigator (212.087,76 euro/3 years)

**Awards:**

2011

**EMC - European Muscle Conference 2011** (Berlin, Germany)**Young Investigators Award**

Title of the presentation: *Gradual formation and accumulation of tubular aggregates in fast-twitch muscle fibers: SERCA and calsequestrin involvement*.

**Recognitions:**

2012

**National Scientific Qualification (ASN): Associate Professor****MIUR (Italian Ministry of University and Research) 05/D1 - Physiology**

National Scientific Qualification to be able to apply for an **associate professor** position at any Italian University.

2018

**National Scientific Qualification(ASN): Full Professor****MIUR (Italian Ministry of University and Research) 05/D1 - Physiology**

National Scientific Qualification to be able to apply for a **full professor** position at any Italian University.

**Selected Invited Presentations at International Meetings**

Nov. 2008

**Pennsylvania Muscle Institute Retreat and Symposium** (Philadelphia-PA, USA)

Title: *Clues to the formation of cores in a mouse model of Malignant Hyperthermia*.

June 2009

**Gordon Research Conference** on EC coupling (New London, NH).

Title: *Clues to the formation of cores in mouse models of malignant hyperthermia and central core disease*.

Sept. 2011

**Italian Physiological Society** (Sorrento, NA)

- Symposium: *Signaling between Mitochondria and Ca<sup>2+</sup> stores in skeletal muscle function and disease.*  
 Title: *Mitochondria coupling to calcium stores in skeletal fibers.*
- June 2012 **Gordon Research Conference** sull'Accoppiamento EC (Les Diablerets , Switzerland).  
 Title: *Reciprocal positioning of CRU and mitochondria in vertebrate skeletal muscle: evolution and age dependence.*
- March 2015 **Spring Padua Muscle Days** (Padova, Italy)  
 Title: *Ageing causes severe ultratructural modification of calcium release units and mitochondria in cardiomyocytes.*
- April 2016 **Spring Padua Muscle Days** (Padova, Italy)  
 Title: *Dysfunctional accumulation of STIM1 and Orai1 in Tubular Aggregates results in impaired Ca<sup>2+</sup> entry in ageing muscle.*
- June 2017 **Gordon Research Conference** sull'Accoppiamento EC (Les Diablerets , Switzerland). Title: *Exercise-dependant formation of new SR-TT junctions which promotes increased STIM1-Orai1 colocalization.*
- August 2017 **II International Symposium of experimental Pathology (ISEP 2017) and VII Symposium of Experimental Pathology of the Cell (Brazil, Londrina)**  
 Title: *Store operated calcium Entry (SOCE) in skeletal muscle: where?*
- April 2018 **Spring Padua Muscle Days** (Padova, Italy)  
 Title: *Lesson from ultrastructure: what images tell if you look closely*
- May 2019 **Gordon Research Conference** on Muscle: Excitation-Contraction Coupling (Lucca, Italy). Title: *Dysfunctional accumulation of STIM1 and Orai1 in Tubular Aggregates results in impaired Ca<sup>2+</sup> entry in aging muscle*

**Advisory Board** from 2012 European Journal of Translational Myology  
<https://www.pagepressjournals.org/index.php/bam/board>

**Memberships of Scientific Societies:** from 2010 **Scientist member of the Pennsylvania Muscle Institute.**  
 School of Medicine – Philadelphia (USA).  
<https://www.med.upenn.edu/pmi/members.html>

**Reviewer:** Frontiers in Physiology; PlosONE; Journals of Gerontology-Series A: Biological Sciences and Medical Sciences; BMC Evolutionary Biology; Journal of Cell Biochemistry & Function; Journal of Histology and Histopathology.

**Professional Society Involvement:**  
 Member of Biophysical Society (since 2006)  
 Member of Italian Society of Physiology (since 2010)  
 Member of Interuniversity Institute of Myology (since 2004)

**Bibliography** Author of 63 Publications (57 original papers and 6 review)

**Last 10 Years Peer reviewed Publications**

17 - **Boncompagni**, S., A. E. Rossi, M. Micaroni, G. V. Beznoussenko, R. S. Polishchuk, R. T. Dirksen, and F. Protasi. 2009. Mitochondria are linked to calcium stores in striated muscle by developmentally regulated tethering structures. *Mol. Biol. Cell.* 20:1058-1067. **I.F. = 5.979**

18 - Squecco, R., U. Carraro, H. Kern, A. Pond, N. Adami, D. Biral, V. Vindigni, S. **Boncompagni**, T. Pietrangelo, G. Bosco, G. Fanò, M. Marini, P. M. Abruzzo, E. Germinario, D. Danieli-Betto, F. Protasi, F. Francini, and S. Zampieri. 2009. A sub-population of rat muscle fibers maintains an assessable excitation-contraction coupling mechanism after long-standing denervation, despite lost contractility. *J. Neuropath. Exp. Neurol.* 68:1256-68. **I.F. = 4.564**

19 - Rossi, A. E., **S. Boncompagni**, and R. T. Dirksen. 2009. Sarcoplasmic reticulum-mitochondrial Symbiosis: bidirectional signaling in skeletal muscle. *Exerc Sport Sci Rev.* 37: 29-35. REVIEW **I.F. = 3.228**

20 - **Boncompagni**, S., A. E. Rossi, M. Micaroni, S. L. Hamilton, R. T. Dirksen, C.

- Franzini-Armstrong, and F. Protasi. 2009. Characterization and temporal development of cores in a mouse model of malignant hyperthermia. *Proc. Natl. Acad. Sci. USA*. 106:21996-22001. **I.F. = 9.432**
- 21 - Gasbarri, C., S. Guernelli, S. Boncompagni, G. Angelini, G. Siani, P. De Maria, A. Fontana. 2010. Fine-tuning of POPC liposomal leakage by the use of beta-cyclodextrin and several hydrophobic guests. *J. Liposome Res.* 20:202-210.  
**I.F. = 1.823**
- 22 - Kern, H., U. Carraro, N. Adami, D. Biral, C. Hofer, C. Forstner, M. Mödlin, M. Vogelauer, A. Pond, S. **Boncompagni**, C. Paolini, W. Mayr, F. Protasi, and S. Zampieri. 2010. Home-based Functional Electrical Stimulation rescues permanently denervated muscles in paraplegic patients with complete lower motor neuron lesion. *Neurorehabilitation and Neural Repair.* 24:709:721.  
**I.F. = 3.772**
- 23 - **Boncompagni**, S., R.E. Loy, R. T. Dirksen and C. Franzini-Armstrong. 2010. The I4895T mutation in the type 1 ryanodine receptor induces fiber-type specific alterations in skeletal muscle that mimic premature aging. *Aging Cell.* 9:958-970.  
**I.F. = 7.148**
- 24 - Wei, L., G. Salahura, **S. Boncompagni**, K. A. Kasischke, F. Protasi, S-S. Sheu, R. T. Dirksen. 2011. Mitochondrial superoxide flashes: metabolic biomarkers of skeletal muscle activity and disease. *Faseb J.* 25:3068-3078  
**I.F. = 5.712**
- 25 - Rossi, A. E., **S. Boncompagni**, L. Wei, F. Protasi, and R. T. Dirksen. 2011. Differential Impact of Mitochondrial Positioning on Mitochondrial Ca<sup>2+</sup> Uptake and Ca<sup>2+</sup> Spark Suppression in Skeletal Muscle. *Am. J. Physiol. Cell Physiol.* 301:C1128-**I.F. = 3.536**
- 26 - Franzini-Armstrong, C., and **S. Boncompagni**. 2011. The evolution of the mitochondria-to-calcium release units relationship in vertebrate skeletal muscles. *J Biomed Biotechnol.* Epub Oct 13. PMID: 22013386. REVIEW  
**I.F. = 2.134**
- 27 - **Boncompagni, S.**, F. Protasi, and C. Franzini-Armstrong. 2012. Sequential stages in the gradual formation and accumulation of tubular aggregates in aging fast twitch muscle: SERCA and Calsequestrin Involvement. *Age.* 34:27-41.  
**I.F. = 4.084**
- 28 - Yuen, B.,\* **S. Boncompagni\***, W. Feng, T. Yang, J. R. Lopez, K. I. Matthaei, S. R. Goth, F. Protasi, C. Franzini-Armstrong, P. D. Allen, and I. N. Pessah. 2012. Mice expressing T4826I-RYR1 are viable but exhibit gender- and genotype dependent susceptibility to malignant hyperthermia and muscle damage. *Faseb J.* 26:1311-1322.  
*\*equally contributed to this work.*  
**I.F. = 5.704**
- 29 - Denegri, M., J. E. Avelino-Cruz, S. **Boncompagni**, S. A. De Simone, A. Auricchio, L. Villani, P. Volpe, F. Protasi, C. Napolitano, and S. G. Priori. 2012. Viral gene transfer rescues arrhythmogenic phenotype and ultrastructural abnormalities in adult Calsequestrin-null mice with inherited arrhythmias. *Circulation Research.* 110:663-668.  
**I.F. = 11.861**
- 30 - **Boncompagni**, S., M. Thomas, J. R. Lopez, P. D. Allen, Q. Yuan, E. G. Kranias, C. Franzini-Armstrong and C. F. Perez. 2012. Triadin/Junctin double null mouse reveals a differential role for triadin and junctin in anchoring CASQ to the jSR and regulating Ca<sup>2+</sup> homeostasis. *PLoS One.* 7:e39962.  
**I.F. = 3.730**
- 31 - **Boncompagni**, S., C. E. Moussa, E. Levy, M. J. Pezone, J. R. Lopez, F. Protasi, and A. Shtifman. 2012. Mitochondrial dysfunction in skeletal muscle of amyloid precursor protein overexpressing mice. *J. Biol. Chem.* 287:20534-20544.  
**I.F. = 4.651**
- 32 - Guarnieri, S., C. Morabito, C. Paolini, S. **Boncompagni**, R. Pilla, G. Fanò-Illic, and M. A. Marigliò. 2013. Growth Associated Protein 43 is expressed in skeletal muscle fibers and is localized in proximity of mitochondria and calcium release units. *PlosONE.* 8:e53267.  
**I.F. = 3.534**
- 33 - Liu, N., M. Denegri, W. Dun, S. **Boncompagni**, F. Lodola, F. Protasi, C. Napolitano, P. A. Boyden, and S. G. Priori. 2013. Abnormal propagation of calcium waves and ultrastructural remodeling in recessive catecholaminergic polymorphic ventricular tachycardia. *Circulation Research.* 113:142-152.

**I.F. = 11.089**

34 - Wei-Lapierre, L., E. M. Carrel, S. **Boncompagni**, F. Protasi, and R. T. Dirksen. 2013. Orai1-dependent calcium entry promotes skeletal muscle growth and limits fatigue. *Nature Communications*. 4:2805.

**I.F. = 10.742**

35 - Valle, G., S. **Boncompagni**, R. Sacchetto, F. Protasi, and P. Volpe. 2014. Post-natal heart adaptation in a knock-in mouse model of Calsequestrin 2-linked recessive catecholaminergic polymorphic ventricular tachycardia. *Exp. Cell Res*. 321:178-89. **I.F. = 3.246**

36 - Denegri, M., J. E. Rossana Bongianino, F. Lodola, S. **Boncompagni**, V.C. De Giusti, J. E. Avelino-Cruz, N. Liu, S. Persampieri, A. Curcio, L. Pietrangelo, I. Marty, L. Villani, A. Auricchio, F. Protasi, C. Napolitano, and S. G. Priori. 2014. Single delivery of an adeno-associated viral construct to transfer the CASQ2 gene to knock-in mice affected by Catecholaminergic Polymorphic Ventricular Tachycardia (CPVT) is able to cure the disease from birth to advanced age. *Circulation*. 129:2673-2681.

**I.F. = 11.019**

37 - Zampieri, S., L. Pietrangelo, S. Loeffler, H. Fruhmans, M. Vogelauer, S. Burggraf, A. Pond, M. Grim-Stieger, J. Cvecka, D. Hammar, M. Sedliak, W. Mayr, N. Sarabon, K. Rossini, L. Barberi, M. De Rossi, V. Romanello, S. **Boncompagni**, A. Musarò, M. Sandri, F. Protasi, U. Carraro, and H. Kern. 2014. Lifelong physical exercise delays age-associated skeletal muscle decline. *J. Gerontol. A Biol. Sci.* 70:163-173.

**I.F. = 5.476**

38 - Ainbinder, A., S. **Boncompagni**, F. Protasi F, R.T. Dirksen RT. 2015. Role of Mitofusin-2 in mitochondrial localization and calcium uptake in skeletal muscle. *Cell Calcium*. 57:14-24.

**I.F. = 2.909**

39 - Mammucari, C., G. Gherardi, I. Zamparo, A. Raffaello, S. **Boncompagni**, F. Chemello, S. Cagnin, A. Braga, S. Zanin, G. Pallafacchina, L. Zentilin, M. Sandri, D. De Stefani, F. Protasi, G. Lanfranchi, and R. Rizzuto. 2015. The mitochondrial calcium uniporter controls skeletal muscle trophism in vivo. *Cell Reports*. 10:1269-1279.

**I.F. = 7.870**

40 - **Boncompagni**, S., L. Arthurton, E. Akujuru, T. Pearson, D. Steverding, F. Protasi, and G. Mutungi. 2015. Membrane glucocorticoid receptors are localized in the extracellular matrix and signal through the MAPK pathway in mammalian skeletal muscle fibres *J. Physiol. (London)*. 593:2679-2692.

**I.F. = 4.731**

41 - Carraro, U., S. **Boncompagni**, V. Gobbo, K. Rossini, S. Zampieri, S. Mosole, B. Ravara, A. Nori, R. Stramare, F. Ambrosio, F. Piccione, S. Masiero, V. Vindigni, P. Gargiulo, F. Protasi, H. Kern, A. Pond, and A. Marcante. 2015. Persistent muscle fiber regeneration in long term denervation. Past, present, future. *Eur. J. Transl. Myol.* 25 (2):4832. doi: 10.4081/ejtm.2015.4832 REVIEW

42 - Pietrangelo, L., A. D'Incecco, A. Ainbinder, A. Michelucci, H. Kern, R.T. Dirksen, S. **Boncompagni**, and F. Protasi. 2015. Age-dependent uncoupling of mitochondria from Ca<sup>2+</sup> release units in skeletal muscle. *Oncotarget*. 6:35358-35371.

**I.F. = 5.008**

43 - Di Crescenzo, A. D., I. Cacciatore, M. Petrini, M. D'Alessandro, N. Petraghani, P.D. Boccio, P.D. Profio, S. **Boncompagni**, G. Spoto, H. Turkez, P. Ballerini, A.D. Stefano, A Fontana. 2017. Gold nanoparticles as scaffolds for poor water soluble and difficult to vehiculate antiparkinson codrugs. *Nanotechnology*. 28(2):025102.

**I.F. = 3.404**

44 - Michelucci, A., C. Paolini, S. **Boncompagni**, M. Canato, C. Reggiani, and F. Protasi. 2017. Strenuous exercise triggers a life-threatening response in mice susceptible to malignant hyperthermia. *FASEB J*. 31(8):3649-3662.

**I.F. = 5.595**

45 - Bongianino, R., M. Denegri, S. **Boncompagni**, F. Lodola, A. Vollero, S. Fasciano, A. Mazzanti, D. Mangione, G. Rizzo, C. Napolitano, A. Auricchio, F. Protasi, and S. G. Priori. 2017. Allele-Specific Silencing of Mutant mRNA Rescues Ultrastructural and Arrhythmic Phenotype in Mice Carriers of the R4496C Mutation in the Ryanodine Receptor Gene (RYR2). *Circ Res*. 121(5):525-536.

**I.F. = 15.211**

46 - Angelini, G., C. Campestre, S. **Boncompagni**, and C. Gasbarri. 2017. Liposomes Entrapping  $\beta$ -Cyclodextrin/Ibuprofen Inclusion Complex: Role of the Host and the Guest

on the Bilayer Integrity and Microviscosity. *Chem Phys Lipids*. PMID:28986064

**I.F. = 2.766**

47 - Michelucci, A., S. **Boncompagni**, M. Canato, C. Reggiani, and F. Protasi. 2017. Estrogens protect Calsequestrin-1 knockout mice from lethal hyperthermic episodes by reducing oxidative stress in muscle. *Oxidative Medicine and Cellular Longevity*. Article ID 6792694;doi:10.1155/2017/6792694.

**I.F. = 4.936**

48 - Michelucci, A., A. De Marco, F. Guarnier, F. Protasi and S. **Boncompagni**. Antioxidant treatment (NAC) reduces formation of cores and improves muscle function in RYR1<sup>Y522S/WT</sup> mice. 2017. *Oxidative Medicine and Cellular Longevity*. Article ID 6936897;doi:10.1155/2017/6936897.

**I.F. = 4.936**

49 - Dobrowolny, G., M. Martini, B.M. Scicchitano, V. Romanello, S. **Boncompagni**, C. Nicoletti, L. Pietrangelo, S. De Panfilis, A. Catizone, M. Bouche, M. Sandri, R. Rudolf, F. Protasi, and A. Musaro. 2017. Muscle expression of SOD1G93A triggers the dismantlement of neuromuscular junction via PKC-theta. *Antioxid Redox Signal*. 28(12):1105-1119.

**I.F. = 5.828**

50 - **Boncompagni, S.**, A. Michelucci, L. Pietrangelo, R.T. Dirksen, and F. Protasi. 2017. Exercise-dependent formation of new junctions that promote STIM1-Orai1 assembly in skeletal muscle. *Scientific Reports*. 7(1):14286

**I.F. = 4.122**

51 - Percario, V., S. **Boncompagni**, F. Protasi, I. Pertici, F. Pinzauti, and M. Caremani. 2017. Mechanical parameters of the molecular motor myosin II determined in permeabilised fibres from slow and fast skeletal muscles of the rabbit. *J Physiol*. 596(7):1243-1257

**I.F. = 4.540**

52 - Michelucci A, García-Castañeda M, **Boncompagni S**, Dirksen RT. 2018. Role of STIM1/ORAI1-mediated store-operated Ca(2+) entry in skeletal muscle physiology and disease. *Cell Calcium*. 76:101-115 REVIEW

**I.F. = 3.932**

53 - Guarnier, F.A., A. Michelucci, M. Serano, L. Pietrangelo, C. Pecorai, S. **Boncompagni**, and F. Protasi. 2018. Aerobic training prevents heat-strokes in Calsequestrin1knockout mice by reducing oxidative stress. *Oxidative Medicine and Cellular Longevity*. Volume 2018, Article ID 4652480, 14 pages

**I.F. = 4.868**

54 - Sébastien, M., B. Giannesini, P. Aubin, J. Brocard, M. Chivet, L. Pietrangelo, S. **Boncompagni**, C. Bosc, J. Brocard, J. Rendu, S. Gory-Fauré, A. Andrieux, A. Forest-Lieuvin, J. Fauré, and I. Marty. 2018. Deletion of the microtubule-associated protein 6 (MAP6) results in skeletal muscle dysfunction. *Skelet Muscle*. 8(1):30.

**IF. = 4.000**

55 - **Boncompagni, S.**, A. Michelucci, L. Pietrangelo, R.T. Dirksen, and F. Protasi. 2018. Addendum: Exercise-dependent formation of new junctions that promote STIM1-Orai1 assembly in skeletal muscle. *Sci Rep*. 8(1):17463.

**I.F. = 4.011**

56 - Pietrangelo, L., A. Michelucci, P. Ambrogini, S. Sartini, F.A. Guarnier, A. Fusella, I. Zamparo, C. Mammucari, F. Protasi, and S. **Boncompagni**. 2019. Muscle activity prevents the uncoupling of mitochondria from Ca(2+) Release Units induced by ageing and disuse. *Arch Biochem Biophys*. 663:22-33.

**I.F. = 3.559**

57 - Elbaz, M., A. Ruiz, J. Eckhardt, P. Pelczar, F. Muntoni, S. **Boncompagni**, S. Treves, and F. Zorzato. 2019. Quantitative reduction of RyR1 protein caused by a single-allele frameshift mutation in RYR1 ex36 impairs the strength of adult skeletal muscle fibres. *Hum Mol Genet*. 1;28(11):1872-1884. doi: 10.1093/hmg/ddz025. PubMed PMID: 30689883.

**I.F. = 4.544**

58 - Elbaz, M., A. Ruiz, C. Bachmann, J. Eckhardt, P. Pelczar, E. Ventur, C. Lindsay, A.D. Wilson, A. Alhussni, T. Humberstone, L. Pietrangelo, S. **Boncompagni**, R. Sitsapesan, S. Treves, and F. Zorzato. 2019. Quantitative RyR1 reduction and loss of calcium sensitivity of RyR1Q1970fsX16+A4329D cause cores and loss of muscle strength. *Hum Mol Genet*. 15;28(18):2987-2999. doi: 10.1093/hmg/ddz092. PubMed PMID: 31044239.

**I.F. = 4.544**

59 - Favaro, G., V. Romanello, T. Varanita, M. Andrea Desbats, V. Morbidoni, C. Tezze, M. Albiero, M. Canato, G. Gherardi, D. De Stefani, C. Mammucari, B. Blaauw, S. Boncompagni, F. Protasi, C. Reggiani, L. Scorrano, L. Salviati, and M. Sandri. 2019. DRP1-mediated mitochondrial shape controls calcium homeostasis and muscle mass. *Nat Commun.* 12;10(1):2576. doi: 10.1038/s41467-019-10226-9. PubMed PMID: 31189900.

**I.F. = 11.878**

60 - Iodice, P., S. Boncompagni, L. Pietrangelo, L. Galli, E. Pierantozzi, D. Rossi, A. Fusella, M. Caulo, H. Kern, V. Sorrentino, and F. Protasi. 2019. Functional Electrical Stimulation: A Possible Strategy to Improve Muscle Function in Central Core Disease? 2019 *Front Neurol.* 10:479. doi: 10.3389/fneur.2019.00479. PubMed PMID: 31191425; PubMed Central PMCID: PMC6548841.

**I.F. = 2.635**

61 - Michelucci, A., S. **Boncompagni**, L. Pietrangelo, M. García-Castañeda, T. Takanoa, S. Malika, R.T. Dirksen and Protasi F. 2019 Transverse Tubule Remodeling Enhances Orai1-dependent Ca<sup>2+</sup> Entry in skeletal muscle. *Elife* – IN PRESS

**I.F. = 7.551**

62 - Baraldo M, Geremia A, Pirazzini M, Nogara L, Solagna F, Türk C, Nolte H, Romanello V, Megighian A, **Boncompagni S**, Kruger M, Sandri M, Blaauw B. Skeletal muscle mTORC1 regulates neuromuscular junction stability. *J Cachexia Sarcopenia Muscle.* 2019 Oct 25. doi: 10.1002/jcsm.12496.

63 – **Boncompagni**, S., D. Pozze, C. Viscomi, A. Ferreiro and E. Zito. 2019 Physical and Functional cross-talk between endo-sarcoplasmic reticulum and mitochondria in skeletal muscle. *ARS - Antioxidant Redox Signalling* – REVIEW - IN PRESS

**I.F.= 5.828**

## 10 Most Significant Publications

- **Boncompagni**, S., L. d'Amelio, S. Fulle, G. Fanò, and F. Protasi. 2006. Progressive disorganization of the excitation-contraction coupling apparatus in ageing human skeletal muscle as revealed by electron microscopy: a possible role in the decline of muscle performance. *J. Gerontol. Biol. Sci.* 61:995-1008.

**I.F. = 2.861**

- **Boncompagni**, S., H. Kern, K. Rossini, W. Mayr, U. Carraro, and F. Protasi. 2007. Structural differentiation of skeletal muscle fibers in absence of innervation in humans. *Proc. Natl. Acad. Sci. USA.* 104:19339-19344.

**I.F. = 9.598**

- Durham, W. J., P. Aracena-Parks, C. Long, A. E. Rossi, S. A. Goonasekera, S. **Boncompagni**, D. L. Galvan, C. P. Gilman, N. Shirokova, F. Protasi, R. T. Dirksen, and S. L. Hamilton. 2008. RYR1 S- Nitrosylation underlies environmental heat stroke and sudden death in Y522S RyR1 knockin mice. *Cell.* 133:53-65.

**I.F. = 31.253**

- Dobrowolny, G., M. Aucello, E. Rizzuto, S. Beccafico, C. Mammucari, S. **Boncompagni**, S. Belia, F. Wannenes, C. Nicoletti, Z. Del Prete, N. Rosenthal, M. Molinaro, F. Protasi, G. Fanò, M Sandri, and A Musarò. 2008. Skeletal muscle is a primary target of SOD1<sup>G93A</sup>-mediated toxicity. *Cell Metabolism.* 8:425-436.

**I.F. = 16.107**

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