

CURRICULUM VITAE

General information

Feliciano Protasi

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Date of Birth:

14 October 1966

Place of Birth:

Foligno (PG), Italy

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Brief Biographical Sketch:

Dr. Feliciano Protasi is Full Professor of Physiology and directs a multi-disciplinary research program focused on human diseases of proven genetic origin, mainly supported by Telethon ONLUS (Italy) and by the National Institute of Health (USA). After graduating in 1991 in Biological Sciences at the University of Perugia, Dr. Protasi moved to the USA to join the laboratory of Prof. Clara Franzini-Armstrong (1993-1997) at the Univ. of Pennsylvania (Philadelphia, PA), where he was involved in projects aiming to understand the differences between skeletal and cardiac excitation-contraction (EC) coupling, the mechanism that activates release of Ca^{2+} (and hence contraction) in muscle. In the second part of his experience abroad (1997-2002), Dr. Protasi joined the lab. of Prof. Paul D. Allen at the Harvard Medical School (Boston, MA) where he received training in molecular biology and Ca^{2+} imaging while continuing his studies in the interaction between proteins involved in EC coupling. Dr. Protasi returned to Italy in 2002 as Associate Professor to join the newly opened institute CeSI (Center for Research of Ageing at Ud'A). He soon established his own lines of research, mainly focused in unraveling the patho-physiological mechanisms underlying myopathies caused by alterations in Ca^{2+} handling in striated muscles, including malignant hyperthermia susceptibility (MHS), exertional-environmental heat stroke (EHS), and tubular aggregate myopathy (TAM).

Current Position

Since March 2011

Università Degli Studi G. d'Annunzio

School of Sport Medicine

Full Professor of Physiology

Chieti, Italy

Previous Academic Appointments

July 2000 – July 2002

Harvard Medical School

Instructor

Boston, MA

Dic. 2002 – Feb. 2011

University G. d'Annunzio of Chieti Pescara

Associate Professor of Physiology

Chieti, Italy

Bibliometric Parameters

(7 Maggio 2020)

n. pubblicazioni: 103

H index: 41

n. totale di citazioni: 5494 (from 3857 documents)

Funding History

Sept. 2002 – Aug. 2005	MIUR Funds (Project <i>Rientro dei Cervelli</i>). Title: <i>The role of Calsequestrin in skeletal EC coupling</i> . Role in the project: Principal Investigator.
Jan. 2004 – Jan. 2006	TELETHON ONLUS Funds (Project ID: GGP030289) Title: <i>The role of Calsequestrin in excitation-contraction coupling and its possible contribution to skeletal muscle diseases</i> . Role in the project: Principal Investigator.
Feb. 2007 – Feb. 2009	PRIN – MIUR Funds (Multicentre Project 2006052901_003 coordinated by P. Volpe - Università di Padova) Title: <i>Structural and functional importance of the major Ca²⁺ binding protein of the sarcoplasmic reticulum (calsequestrin) in the development and full maturation of skeletal muscle fibers</i> . Role in the project: Co-Investigator.
Nov. 2008 – Nov. 2011	TELETHON ONLUS Funds (Multicentre Project GGP08153 coordinated by F. Protasi) Multicentre Project coordinated by F. Protasi Title: <i>Calsequestrins in calcium homeostasis and potential role in inherited human skeletal muscle diseases</i> . Role in the project: Principal Investigator and Coordinator.
Aug. 2010 – June 2015	NIH-NIAMS Funds (Multicentre Project RO1 AR059646-01 coordinated by R.T. Dirksen - Univ. of Roch., NY) Title: <i>Molecular Mechanism and functional role of SOCE in skeletal muscle</i> . Role in the project: Co-Investigator.
Feb. 2011 – Jan. 2016	NIH-NIAMS Funds (Multicentre Project R01 AR053349-06 coordinated by S. H. Hamilton - Baylor College, TX) Title: <i>Basis of muscle dysfunction in Malignant Hyperthermia and Central Core Disease</i> . Role in the project: Co-Investigator.
Oct. 2011 – Sept. 2014	Finanziamento Fondazione TELETHON ONLUS (Multicentre Project GGP11141 coordinated by S. Priori – Univ. of Pavia) Progetto Multicentrico coordinato da S. Priori (Università di Pavia) Title: <i>Mutations of cardiac calsequestrin and cardiac arrhythmias: novel insights on pathogenesis and therapy</i> . Role in the project: Co-Investigator.
Aug. 2013 - July 2016	MDA - Muscular Dystrophy Association USA (Multicentre Project 275574 coordinated by R.T. Dirksen - Univ. of Roch., NY) Title: <i>Orai1 as a Therapeutic Target for Central Core Disease</i> . Role in the project: Co-Investigator.
Jan. 2014 – July. 2016	TELETHON ONLUS Funds (Multicentre Project GGP13213 coordinated by F. Protasi) Project Title: <i>Altered calcium handling in Central Core Disease (CCD) and Malignant Hyperthermia (MH): understand molecular mechanisms and genetic background to develop innovative therapeutic interventions</i> . Role in the project: Principal Investigator and Coordinator.
Apr. 2016 – Mar. 2021	NIH-NIAMS Funds (Multicentre Project RO1 AR059646-06 coordinated by R.T. Dirksen - Univ. of Roch., NY) Title: <i>Molecular Mechanism and Functional Role of SOCE in Skeletal Muscle</i> . Role in the project: Co-Investigator.

Feb. 2017 – Jan. 2020	PRIN – MIUR Funds (Multicentre Project 2015ZZR4W3 coordinated by V. Sorrentino - University of Siena). Title: <i>Novel developments in studies of Ca²⁺ entry mechanisms: relevance to skeletal muscle function and disease.</i> Role in the project: Co-Investigator.	
Jan. 2020 – Dec. 2022	TELETHON ONLUS Funds (Multicentre Project GGP19231 coordinated by F. Protasi) Title: <i>Store-Operated Calcium Entry (SOCE): role in skeletal muscle function and disease.</i> Role in the project: Principal Investigator and Coordinator.	
Reviewer:	Scientific Journals: Ageing Cell, American Journal of Physiology, Biophysical Journal, Human Mutation, Journal of Cell Biology, Journal of Histochemistry and Cytochemistry, Pflugers Archives-European Journal of Physiology, Proc. Natl. Acad. Sci. USA; Biochemical Journal; Faseb J, Plos ONE. Funding Agencies: Biotechnology and Biological Sciences Research Council (UK Universities); Science Foundation of Ireland (Ireland); Myotubular Trust Foundation (UK); Agence Nationale de la Recherche (France).	
Professional Society Involvement:	<i>Member of Biophysical Society (since 1998)</i> <i>Member of Italian Society of Physiology (since 2003)</i> <i>Member of Interuniversity Institute of Myology (since 2004)</i>	
Education		
July 1985	Liceo Scientifico Guglielmo Marconi	Foligno (PG), Italy
	<i>Diploma di Maturità Scientifica</i>	
July 1991	Università degli Studi di Perugia	Perugia, Italy
	<i>Laurea (Doctorate) in Scienze Biologiche</i> (Magna cum Laude). Thesis: Effects of S-100ab on the binding of Ryanodine to its receptor in the Sarcoplasmic Reticulum (Supervisor: Prof. Giorgio Fanò).	
Postdoctoral Training		
July 1991 – May 1993	Università degli Studi di Perugia Institute of Cellular Biology Tirocinando (Supervisor: Prof. Giorgio Fano')	Perugia, Italy
June 1993 – Aug. 1997	University of Pennsylvania School of Medicine Dept. of Cell and Developmental Biology Post-Doctoral Fellow (Supervisor: Dr. Clara Franzini-Armstrong)	Philadelphia, PA
Sep. 1997 – June 2000	Brigham and Women's Hospital (Harvard Medical School) Dept. of Anesthesia Research Post-Doctoral Fellow (Supervisor: Dr. P. D. Allen)	Boston, MA
July 2000 – July 2002	Brigham and Women's Hospital (Harvard Medical School) Dept. of Anesthesia Research Research Associate (Supervisor: Dr. P. D. Allen)	Boston, MA

Invited Presentations at International Meetings (last 10 years)

September 2010	39th European Muscle Conference (Padova, Italy) Title: <i>Calcium release units / mitochondria coupling in developing, ageing and diseased skeletal muscle.</i>
September 2011	40th European Muscle Conference (Berlin, Germany) Title: <i>Calsequestrin-1, a new candidate gene for human muscle disorders.</i>
November 2012	Société Française de Myologie (Grenoble, France) Title: <i>Core formation in Mouse Models of Malignant Hyperthermia and Central Core Disease.</i>
August 2014	International Biophysics Congress (Brisbane, Australia) Title: <i>The puzzling phenotype of calsequestrin-1 knockout mice: what have we learned?</i>
October 2014	XI Meeting of the Italian Institute of Myology (Monteriggioni, SI) Title: <i>Link between malignant hyperthermia (MH) and environmental heat stroke (EHS): just a medical hypothesis?</i>
November 2014	3rd Wiener Muskeltag (Vienna, Austria) Title: <i>Degeneration of chronically denervated human muscle is reversible.</i>
June 2015	Gordon Research Conference on Muscle EC coupling (Newry, ME). Title: <i>Store-operated Calcium Entry (SOCE) in skeletal muscle: where?</i>
December 2015	AuPS, Australian Physiological Society (Hobart, Tasmania) Titolo: <i>Exercise-dependent formation of new SR-TT junctions containing STIM1 and Orai1.</i>
February 2016	Medical School of T. Jefferson University (Philadelphia, PA) Title: <i>Calcium Entry Units: discovery of new intracellular junctions containing STIM1 and Orai1 in skeletal muscle.</i>
March 2019	Advances in Skeletal Muscle Biology in Health and Disease (Gainesville, FL) Title: <i>Store-Operated Ca²⁺ Entry (SOCE) in skeletal muscle: where?</i>
October 2019	Telethon Scientific Convention (Riva del Garda, TR) Title: <i>Store-Operated Ca²⁺ Entry (SOCE): role in Skeletal Muscle function and disease.</i>

Bibliography

Autore di 103 Pubblicazioni (97 lavori originali e 7 reviews)

Peer reviewed Publications of Last 10 Years

- 45 - 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.
- 46 - Royer, L., M. Sztretye, C. Manno, S. Pouvreau, J. Zhou, B. C. Knollmann, F. **Protasi**, P. D. Allen, and E. Ríos. 2010. Paradoxical buffering of calcium by calsequestrin demonstrated for the calcium store of skeletal muscle. *J. Gen. Physiol.* 136:325-338.
- 47 - M. Canato, M. Scorzeto, M. Giacomello, F. **Protasi**, C. Reggiani, and G. J. M. Stienen. 2010. Massive alterations of sarcoplasmic reticulum free calcium in skeletal muscle fibers lacking calsequestrin revealed by a genetically encoded

probe. *Proc. Natl. Acad. Sci. USA*. 107:22326-22331.

48 - 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.

49 - Rossi, A. E., S. Boncompagni, L. Wei, F. **Protasi**, and R. T. Dirksen. 2011. Differential impact of mitochondrial positioning on mitochondrial Ca^{2+} uptake and Ca^{2+} spark suppression in skeletal muscle. *Am. J. Physiol. Cell Physiol*. 301:C1128-1139.

50 - Paolini, C., M. Quarta, L. d'Onofrio, C. Reggiani, and F. Protasi. 2011. Differential effect of calsequestrin ablation on structure and function of fast and slow twitch skeletal fibers. *J. Biomed. Biotechnol*. 2011:634075. PMID: 21941434.

51 - Iannitelli, A., R. Grande, A. Di Stefano, M. Di Giulio, P. Sozio, L. J. Bessa, S. Laserra, C. Paolini, F. **Protasi**, and L. Cellini. 2011. Potential antibacterial activity of carvacrol-loaded PLGA nanoparticles against microbial biofilm. *Int. J. Mol. Sci*. 12:5039-5051.

52 - Kern, H., L. Pelosi, L. Coletto, A. Musarò, M. Sandri, M. Vogelauer, L. Trimmel, J. Cvecka, D. Hamar, J. Kovarik, S. Löfler, N. Sarabon, F. **Protasi**, N. Adami, D. Biral, S. Zampieri, and U. Carraro. 2011. Atrophy/hypertrophy cell signaling in muscles of young athletes trained with vibrational-proprioceptive stimulation. *Neurological Research*. 33:998-1009.

53 - 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.

54 - Tomasi, M., M. Canato, C. Paolini, M. Dainese, C. Reggiani, P. Volpe, F. **Protasi**, and A. Nori. 2012. Calsequestrin (CASQ1) rescues function and structure of calcium release units in skeletal muscles of CASQ1-null mice. *Am. J. Physiol. Cell Physiol*. 302:C575-586.

55 - Yuen, B., S. Boncompagni, W. Feng, T. Yang, J. R. Lopez, K. I. Matthaehi, 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.

56 - 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.

57 - 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 (APP) overexpressing mice. *J. Biol. Chem*. 287:20534-20544.

58 - Mosca, B., O. Delbono, M. L. Messi, L. Bergamelli, Z-M. Wang, M. Vukcevic†, R. Lopez, S. Treves, M. Nishi, H. Takeshima, C. Paolini, M. Martini, G. Rispoli, F. **Protasi**, and F. Zorzato. 2013. Enhanced dihydropyridine receptor calcium channel activity restores muscle strength in JP45/CASQ1 double knock-out mice. *Nature Communications*. 4:1541.

59 - Nemazanyy, I., G. Panasyuk, C. Paolini, F. Protasi, M. Sandri, and M. Pende. 2013. Defects of mouse Vps15 in muscles lead to autophagic vacuolar myopathy. *EMBO Mol. Medicine*. 5:870-890.

60 - 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.

61 - Scorzeto, M., M. Giacomello, L. Toniolo, M. Canato, B. Blaauw, C. Paolini, F. **Protasi**, C. Reggiani, and G. J. Stienen. 2013 Mitochondrial Ca^{2+} -handling in

fast skeletal muscle fibers from wild type and calsequestrin null mice. *PloS One*. 8:e74919.

62 - Yarotskyy, V., F. **Protasi**, and R. T. Dirksen. Accelerated activation of SOCE current in myotubes from two mouse models of of anesthetic- and heat-induced sudden death. *PlosOne*. 8:e77633.

63 - 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.

64 - Rossi, D., C. Bencini, M. Maritati, F. Benini, S. Lorenzini, E. Pierantozzi, A. M. Scarcella, C. Paolini, F. **Protasi**, and V. Sorrentino. 2014. Distinct domains are required for targeting and retention of triadin to the junctional region of the sarcoplasmic reticulum. *Biochem J*. 458:407-417.

65 - 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*. 321:178-189.

66 - Zampieri, S., L. Pietrangelo, S. Loeffler, H. Fruhmahn, M. Vogelauer, S. Burggraf, A. Pond, M. Grim-Stieger, J. Cvecka, M. Sedliak, V. Tirpakova, 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. 2015. Lifelong physical exercise delays age-associated skeletal muscle decline. *J. Gerontol. A Biol. Sci*. 70:163-73.

67 - Mosole, S., U. Carraro, H. Kern, S. Loeffler, H. Fruhmahn, M. Vogelauer, S. Burggraf, W. Mayr, M. Krenn, T. Paternostro-Sluga, D. Hamar, J. Cvecka, M. Sedliak, V. Tirpakova, N. Sarabon, A. Musarò, M. Sandri, F. **Protasi**, A. Nori, A. Pond, and S. Zampieri. 2015. Long-term high-level exercise promotes muscle reinnervation with age. *J. Neuropath. Exp. Neurol*. 73:284-294.

68 - Denegri, M. R. Bongianino, F. Lodola, S. Boncompagni, V.C. De Giusti, J. E. Avelino-Cruz, N. Liu, S. Persampieri, A. Curcio, F. Esposito, L. Pietrangelo, I. Marty, L. Villani, A. Moyaho, P. Baiardi, 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 is able to cure the disease from birth to advanced age. *Circulation*. 129:2673-81.

69 - Kern H., L. Barberi, S. Löfler, S. Sbardella, S. Burggraf, H. Fruhmahn, U. Carraro, S. Mosole, N. Sarabon, M. Vogelauer, W. Mayr, M. Krenn, J. Cvecka, V. Romanello, L. Pietrangelo, F. **Protasi**, M. Sandri, S. Zampieri, and A. Musaro. 2014. Electrical stimulation counteracts muscle decline in seniors. *Front Aging Neurosci*. 6:189.

70 - Rossi D., B. Vezzani, L. Galli, C. Paolini, L. Toniolo, E. Pierantozzi, S. Spinozzi, V. Barone, E. Pegoraro, L. Bello, G. Cenacchi, G. Vattermi, G. Tomelleri, G. Ricci, G. Siciliano, F. **Protasi**, C. Reggiani, and V. Sorrentino. 2014b. A mutation in the CASQ1 Gene Causes a Vacuolar Myopathy with Accumulation of Sarcoplasmic Reticulum Protein Aggregates. *Hum Mutat*. 35:1163-1170.

71 - De Cola, A., L. Pietrangelo, F. Forlì, D. Barcaroli, M. C. Budani, V. Graziano, F. **Protasi**, C. Di Ilio, V. De Laurenzi, and L. Federici. 2014. AML cells carrying NPM1 mutation are resistant to nucleophosmin displacement from nucleoli caused by the G-quadruplex ligand TmPyP4. *Cell Death Dis*. 5:e1427.

72 - Giacomello, E., M. Quarta, C. Paolini, R. Squecco, P. Fusco, L. Toniolo, B. Blaauw, L. Formoso, D. Rossi, C. Birkenmeier, L. Peters, F. Francini, F. **Protasi**, C. Reggiani, and V. Sorrentino. 2015. Deletion of small ankyrin 1 (sAnk1) isoforms results in structural and functional alterations in aging skeletal muscles fibers. *Am J Physiol.-Cell Physiol*. 308:C123-138.

73 - Ainbinder, A., S. Boncompagni, F. **Protasi**, and R. T. Dirksen. 2015. Role of Mitofusin-2 in mitochondrial localization and calcium uptake in skeletal muscle.

Cell Calcium. 57:14-24.

74 - Lamboley, C.R.H., S.A. Kake Guena, F. Touré, C. Hébert, L. Yaddaden, S. Nadeau, P. Bouchard, L. Wei-LaPierre, J. Lainé, E. Rousseau, J. Frenette, F. **Protasi**, R.T. Dirksen, and P.C. Pape. 2015. New method for determining total calcium content in tissue applied to skeletal muscle with and without calsequestrin. *J. Gen. Physiol.* 145:127-153.

75 - 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.

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

77 - Paolini, C., A. Michelucci, M. Quarta, L. Wei-Lapierre, A. Nori, C. Reggiani, R.T. Dirksen and F. **Protasi**. 2015. Oxidative stress, mitochondrial damage, and cores in muscle from calsequestrin-1 knockout mice. *Skeletal Muscle*. 5:10.

78 - Michelucci, A., C. Paolini, M. Canato, L. Wei-Lapierre, L. Pietrangelo, A. De Marco, C. Reggiani, R.T. Dirksen, and F. **Protasi**. 2015. Anti-oxidants protects calsequestrin-1 knockout mice from halothane- and heat- induced sudden death. *Anesthesiology*. 123:603-617.

79 - Di Blasi, C., S. Sansanelli, A. Ruggieri, M. Moriggi, M. Vasso, A. P. D'Adamo, F. Blasevich, S. Zanotti, C. Paolini, F. **Protasi**, F. Tezzon, C. Gelfi, L. Morandi, M. Pessia, and M. Mora. 2015. A CASQ1 founder mutation in three Italian families with protein aggregate myopathy and hyperCKaemia. *J. Med. Genet.* 52:617-626.

80 - 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^{2+} release units in skeletal muscle. *Oncotarget*. 6: 35358-35371.

81 - 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.

82 – Protasi, F. 2015. Mitochondria Association to Calcium Release Units is Controlled by Age and Muscle Activity. *Eur. J. Transl. Myol.* 25(4):257-62.

83 - Mosca, B., J. Eckhardt, L. Bergamelli, S. Treves, G. Valle, R. Bongianino, M. Denegri, S.G. Priori, F. **Protasi**, P. Volpe, and F. Zorzato. 2016. Role of the JP45-calsequestrin complex on calcium entry in slow twitch skeletal muscles. *J. Biol. Chem.* 291:14555-14565.

84 - Randazzo, D., B. Blaauw, C. Paolini, E. Pierantozzi, S. Spinozzi, S. Lange, J. Chen, F. **Protasi**, C. Reggiani, and V. Sorrentino. 2017. Exercise-induced alterations and loss of sarcomeric M-line organization in the diaphragm muscle of obscurin knockout mice. *Am. J. Physiol. Cell Physiol.* 312:C16-C28.

85 - Zampieri, S., C. Mammucari, V. Romanello, L. Barberi, L. Pietrangelo, A. Fusella, S. Mosole, G. Gherardi, C. Höfer, S. Löffler, N. Sarabon, J. Cvecka, M. Krenn, U. Carraro, H. Kern, F. **Protasi**, A. Musarò, M. Sandri, and R. Rizzuto. 2016. Physical exercise in aging human skeletal muscle increases mitochondrial calcium uniporter expression levels and affects mitochondria dynamics. *Physiol. Rep.* 4:e13005.

86 - Iodice, P., C. Ferrante, L. Brunetti, S. Cabib, F. **Protasi**, M. Walton, and G. Pezzulo. 2017. Fatigue modulates dopamine availability and promotes flexible choice reversals during decision making. *Scientific Reports*. 7:535. PMID:28373651

- 87 - Michelucci, A., C. Paolini, S. Boncompagni, M. Canato, S. C. Reggiani, and F. **Protasi**. 2017. Strenuous exercise triggers a life-threatening response in mice susceptible to Malignant Hyperthermia. *Faseb J.* 31:3649-3662.
- 88 - Bongianino, R., M. Denegri, A. Mazzanti, F. Lodola, A. Vollero, S. Boncompagni, S. Fasciano, G. Rizzo, D. Mangione, S. Barbaro, A. Di Fonso, 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.* 121:525-536.
- 89 - Michelucci, A., A. DeMarco, F. Guarnier, F. **Protasi**, and S. Boncompagni. 2017. Antioxidant treatment reduces formation of structural cores and improves muscle function in RYR1^{Y522S/WT} mice. *Oxidative Medicine and Cellular Longevity*. 2017:6792694. doi: 10.1155/2017/6792694.
- 90 - 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*. 2017:6936897. doi: 10.1155/2017/6936897.
- 91 - 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.
- 92 - Guarnier, F.A., A. Michelucci, M. Serano, L. Pietrangelo, C. Pecorai, S. Boncompagni, and F. **Protasi**. 2018. Aerobic training prevents heatstrokes in calsequestrin-1 knockout mice by reducing oxidative stress *Oxidative Medicine and Cellular Longevity* Article number 4652480
- 93 - Percario, V., S. Boncompagni, F. **Protasi**, I. Pertici, F. Pinzauti, and M. Caremani. 2018. Mechanical parameters of the molecular motor myosin II determined in permeabilised fibres from slow and fast skeletal muscles of the rabbit. *J. Physiol. (London)*. Nov 17. doi: 10.1113/JP275404.
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