Curriculum Vitae

MOZZETTA Chiara, PhD

Personal data

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Researcher Identifiers

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Education

November 2013	II level Master in Preclinical and Clinical Drug Development. Catholic University, Medical School, Rome, Italy. Pharmatrain centre of excellence.
February 2009	PhD in Genetics and Molecular Biology. University "Sapienza" of Rome, Italy.
November 2004	Master degree in Biological Sciences, (110/110 cum laude) University "Sapienza" of Rome, Italy.

Research experiences

April 2018	National Scientific Qualification for Associate Professor (Abilitazione Scientifica Nazionale, ASN, II Fascia). Academic Discipline: Molecular Biology (05/E2 – BIO/11); Applied Biology (05/F1- BIO/13).
Since May 2016	Principal Investigator, Researcher (RTD A) at University Sapienza of Rome, Dept. of Biology and Biotechnology "C. Darwin". Italy, Rome. Epigenetic regulation of muscle progenitor cells in skeletal muscle regeneration and disease.
09/2013- 04/2016	Research Associate, National Research Council (CNR) of Italy, Rome. Institute of Cell Biology and Neurobiology (IBCN). Epigenetics and Stem cells lab.
12/2010- 08/2013	Post-doc at UMR7216 CNRS/University Paris Diderot, Paris (France), Dr. Slimane Ait-Si-Ali lab. Research Project: Epigenetic regulation of gene transcription. Role of histone methyltransferases in the regulation of embryonic and adult stem cells fate. FRM and EMBO long-term fellowships.
02/2009 - 11/2010	Post-doc at Dulbecco Telethon Institute (DTI), Rome (Italy), Dr. Pier Lorenzo Puri lab. Research Project: Identification and characterization of muscle interstitial stem cells as a target of HDAC inhibitors in the treatment of muscular dystrophy. AFM fellowship.
05/2009 - 08/2009	Visiting Research Scientist at Sanford-Burnham for Medical Research, La Jolla (CA, USA).
01/2005 - 01/2009	Post-graduate and PhD training, Dr Pier Lorenzo Puri lab at Dulbecco Telethon Institute c/o European Brain Research Institute/S. Lucia, Rome (Italy). Research projects: Study of chromatin signalling in muscle stem cells during skeletal muscle regeneration. Parent project and AFM fellowships.
02/2008 - 03/2008	Visiting PhD fellow, Dr. David Sassoon lab at Myology, University Pierre et Marie Curie, Paris (France).
10/2006 – 01/2007	Visiting PhD student at Sanford-Burnham for Medical Research, La Jolla (CA, USA).

10/2002 – 12/2004	Undergraduate fellow, Prof. Gabriella Augusti Tocco lab at the Department of Cellular and Developmental Biology, University "La Sapienza" of Rome (Italy). Research project: Role of Acetylcholine in the regulation of neuronal development.

Teaching and Tutoring Experiences

2017- to date	Lecturer for the course "Animal Physiology" (6 CFU; Academic Discipline BIO/09), BSc in Environmental Sciences (L-32), Faculty of Sciences University "Sapienza" of Rome.
2016- to date	PhD students' supervisor c/o PhD course "Cell and Developmental Biology", University "Sapienza" of Rome.
2016- to date	Member of the examining committee for "General and Animal Physiology" for the BSc in Biological Sciences (L-13), Natural Sciences (L-32) and Environmental Sciences (L-32), Faculty of Sciences University "Sapienza" of Rome.

Institutional responsibilities

2018- present	Faculty committee, PhD course "Cell and Developmental Biology", University "Sapienza" of Rome.
2017- present	Member, Committe for Quality Assurance Management, BSc Environmental Sciences (L-32), Faculty of Sciences University "Sapienza" of Rome

Fellowships/Awards

UMR7216 CNRS, Paris:

9/2011-8/2013	EMBO Long-term post-doc Fellowship
1/2011-8/2011	FRM (Fondation pour la Recherche Médicale), short-term post-doc fellowship

DTI, Rome:

2009/2010	Post-doc fellowships granted by AFM (Association Française contre les Myopathies)
2008	PhD fellowship granted by AFM
2006/2007	PhD fellowship granted by Duchenne Parent Project Onlus

Relevant courses and certifications

9-11/4/2014	Workshop on NGS & data analysis at Institute of Applied Genomics (IGA)
18-20/2/2014	EMBO Laboratory Management Course for post-docs
11/2008	Laboratory Animal Science, FELASA (Federation of European laboratory animal science associations) certification

Funding

Scientific Independence of Young Researcher (SIR), Italian Ministry of University and Research: Role of Prdm16 and histone H3 lysine 9 methyltransferases G9a/GLP in the epigenetic regulation of Fibro-Adipogenic Progenitors fate choice in dystrophic muscles. 459800 eur/3 years, since May 2016.
CNCCS (Consortium National Collection of Compounds and Chemical Screening Center): Targeting Histone Methyltransferases: in quest of pharmacological therapies for rare muscle diseases. 40000 eur/2016; 70000eur/2017.
MyFIRST AIRC grant, Italian Association for Cancer Research (AIRC): Histone H3K9 Methyltransferase G9a in the patho-epigenetic deregulation of rhabdomyosarcoma. 222600 eur/3 years, since June 2017.
Integrated projects "LIFE 2020" POR FESR LAZIO 2014: "RESEARCH - Riposizionamento E Sviluppo Economico di Attività di Ricerca su Composti HDACi". 277489 eur/18 months. Since April 2018.

Meetings and Presentations

24 Mar 2017: Seminar series "The Nucleus and the control of gene expression", PhD School in Biomedical Sciences and Biotechnology. University of Udine, Italy. Invited speaker: Epigenetic regulation of muscle resident stem cells during skeletal muscle regeneration and disease.
26-27 Sept 2016: 1st EMBL/Sapienza PhD meeting "Chromatin & Epigenetics", Rome, Italy. Invited speaker: Epigenetic regulation of muscle resident stem cells during skeletal muscle regeneration and disease.
23-26 Aug 2014: EMBL Conference "Transcription & Chromatin", Heidelberg, Germany. Poster: Impairment of LaminA/C-Polycomb crosstalk as a possible epigenetic cause of Emery Dreifuss Muscular Dystrophy (EDMD).
2 Mar 2010: Harvard Stem Cell Institute, Cambridge (MA), USA. Oral: Chromatin signalling and regeneration: p38/Polycomb signalling to Pax7 locus in satellite cells links inflammation to muscle regeneration.
12 Feb 2010: University Paris Diderot, Paris7, France. Oral: p38/Polycomb signalling to Pax7 locus in satellite cells links inflammation to muscle regeneration.
8 Feb 2010: IFOM, Milan, Italy. Oral: p38/Polycomb signalling to Pax7 locus in satellite cells links inflammation to muscle regeneration.
3-4 Dec. 2009: Chromatin remodeling and human disease, IRE annual workshop, Rome, Italy. Oral: Chromatin signalling and regeneration: from pathogenesis to treatment of skeletal muscle diseases
28 May-2 June 2009: Making Muscle in the Embryo and the Adult, Columbia Univ. New York, USA. Poster: Characterization of the deacetylase inhibitors-responsive population of muscle progenitor cells during muscle regeneration.
13-18 May 2007: Gordon Research Conference: Myogenesis. Siena, Italy. Poster: Targeting the chromatin of myogenic progenitors to control muscle regeneration.
26-28 October 2007: SIB 2007 (Italian Society of Biochemistry). Riccione, Italy. Oral: Targeting the chromatin of myogenic progenitors to control muscle regeneration.

Publications on international peer-reviewed journals (H-index: 16)

1. Mozzetta C. Isolation and culture of muscle stem cells. Methods Mol Biol. 2016; 1480:311-22. doi: 10.1007/978-1-4939-6380-5_27.

2. Cesarini E, Mozzetta C, Marullo F, Gregoretti F, Gargiulo A, Columbaro M, Cortesi A, Antonelli L, Di Pelino S, Squarzoni S, Palacios D, Zippo A, Bodega B, Oliva G, Lanzuolo C. Lamin A/C sustains PcG protein architecture, maintaining transcriptional repression at target genes. J Cell Biol. 2015 Nov 9;211(3):533-51. doi: 10.1083/jcb.201504035.

3. Mozzetta C*, Boyarchuk E, Pontis J, Ait-Si-Ali S,*. Sound of Silence: The properties and functions of repressive lysine methyltransferases. Nature Review Molecular Cell Biology. 2015 Aug;16(8):499-513. doi: 10.1038/nrm4029. Review. * corresponding author.

4. Mozzetta C*, Pontis J, Ait-Si-Ali S,*. Functional crosstalks between lysine methyltransferases on histone substrates: the case of G9a/GLP and PRC2. Invited review Antioxidant & Redox Signaling, special issue on Epigenetics. 2014 Nov 3* corresponding author

5. Consalvi S, Saccone V, Mozzetta C*. Histone Deacetylase Inhibitors (HDACi): the potential of an epigenetic treatment for Duchenne Muscular Dystrophy. Invited review. 2014;6(5):547-60. doi: 10.2217/epi.14.36. Epigenomics. * corresponding author

6. Saccone V, Consalvi S, Giordani L, Mozzetta C, Ryan T, Madaro L, Rojas Munoz A, Bruneau B, Fasanaro P, Termanini A, Barozzi I, Mercola M, Minucci S, Puri P.L. (2014) HDAC-regulated myomiRs control BAF60 variant exchange and direct the functional phenotype of fibroadipogenic progenitors in dystrophic muscles. Genes & Development, Apr 15;28(8):841-57. doi: 10.1101/gad.234468.113.

7. Mozzetta C *, Pontis J, Fritsch L, Robin P, Portoso M, Proux C, Margueron R, Ait-Si-Ali S* (2014). The Histone H3 Lysine 9 Methyltransferases G9a and GLP Regulate Polycomb Repressive Complex 2-Mediated Gene Silencing. Molecular Cell. Jan 23;53(2):277-89. doi: 10.1016/j.molcel.2013.12.005. Epub 2014 Jan 2. * corresponding author

8. Consalvi S, Mozzetta C, Bettica P, Germani M, Fiorentini F, Del Bene F, Rocchetti M, Leoni F, Monzani V, Mascagni P, Puri PL, Saccone V. (2013). Preclinical studies in the mdx mouse model of duchenne muscular dystrophy with the histone deacetylase inhibitor givinostat. Molecular medicine (Cambridge, Mass.), 19, 79–87. doi:10.2119/molmed.2013.00011

9. Mozzetta C, Consalvi S, Saccone V, Tierney M, Diamantini A, Mitchell KJ, Marazzi G, Borsellino G, Battistini L, Sassoon D, Sacco A, Puri PL. (2013). Fibroadipogenic progenitors mediate the ability of HDAC inhibitors to

promote regeneration in dystrophic muscles of young, but not old Mdx mice. EMBO Molecular Medicine, *5*, 626–39. doi:10.1002/emmm.201202096.

10. Corsetti V, Mozzetta C, Biagioni S, Augusti Tocco G, Tata AM. The mechanisms and possible sites of acetylcholine release during chick primary sensory neuron differentiation. Life Sci. (2012) Oct 22;91(15-16):783-8. doi: 10.1016/j.lfs.2012.08.026.

11. Stojic L, Jasencakova Z, Prezioso C, Stützer A, Bodega B, Pasini D, Klingberg R, Mozzetta C, Margueron R, Puri PL, Schwarzer D, Helin K, Fischle W, Orlando V. Chromatin regulated interchange between polycomb repressive complex 2 (PRC2)-Ezh2 and PRC2-Ezh1 complexes controls myogenin activation in skeletal muscle cells. Epigenetics Chromatin (2011) Sep 5;4:16. doi: 10.1186/1756-8935-4-16.

12. Consalvi, S., Saccone, V., Giordani, L., Minetti, G., Mozzetta, C., & Puri, P. L. Histone Deacetylase Inhibitors in the Treatment of Muscular Dystrophies: Epigenetic Drugs for Genetic Diseases. Molecular medicine Cambridge Mass, (2011). *17*, 457–465. doi:10.2119/molmed.2011.00049.

13. Mozzetta, C., Consalvi, S., Saccone, V., Forcales, S. V, Puri, P. L., & Palacios, D. Selective control of Pax7 expression by TNF-activated p38α/polycomb repressive complex 2 (PRC2) signaling during muscle satellite cell differentiation. Cell cycle (2011) 10, 191–198. doi:10.4161/cc.10.2.14441.

14. Palacios, D.*, Mozzetta, C.*, Consalvi, S., Caretti, G., Saccone, V., Proserpio, V., Marquez SV., Valente S., Mai A., Forcale SV., Sartorelli V., Puri, P. L. (2010). TNF/p38α/polycomb signaling to Pax7 locus in satellite cells links inflammation to the epigenetic control of muscle regeneration. Cell Stem Cell, *7*, 455–469. doi:10.1016/j.stem.2010.08.013. * equal contribution

15. Colussi C, Gurtner A, Rosati J, Illi B, Ragone G, Piaggio G, Moggio M, Lamperti C, D'Angelo G, Clementi E, Minetti G, Mozzetta C, Antonini A, Capogrossi MC, Puri PL, Gaetano C. Nitric oxide deficiency determines global chromatin changes in Duchenne muscular dystrophy. The FASEB journal (2009) 23, 2131–2141. doi:10.1096/fj.08-115618

16. Salani M, Anelli T, Tocco GA, Lucarini E, Mozzetta C, Poiana G, Tata AM, Biagioni S. Acetylcholine-induced neuronal differentiation: muscarinic receptor activation regulates EGR-1 and REST expression in neuroblastoma cells. Journal of neurochemistry, (2009) 108, 821–834. doi:10.1111/j.1471-4159.2008.05829.

17. Colussi C, Mozzetta C, Gurtner A, Illi B, Rosati J, Straino S, Ragone G, Pescatori M, Zaccagnini G, Antonini A, Minetti G, Martelli F, Piaggio G, Gallinari P, Steinkuhler C, Clementi E, Dell'Aversana C, Altucci L, Mai A, Capogrossi MC, Puri PL, Gaetano C. HDAC2 blockade by nitric oxide and histone deacetylase inhibitors reveals a common target in Duchenne muscular dystrophy treatment. PNAS, (2008) 105, 19183–19187. doi:10.1073/pnas.0805514105

18. Mozzetta, C., Minetti, G., & Puri, P. L. (2009). Regenerative pharmacology in the treatment of genetic diseases: the paradigm of muscular dystrophy. The international journal of biochemistry & cell biology, 41, 701–710. doi:10.1016/j.biocel.2008.08.033.

19. Serra C, Palacios D, Mozzetta C, Forcales SV, Morantte I, Ripani M, Jones DR, Du K, Jhala US, Simone C, Puri PL. Functional interdependence at the chromatin level between the MKK6/p38 and IGF1/PI3K/AKT pathways during muscle differentiation. Molecular cell, (2007) 28, 200–213. doi:10.1016/j.molcel.2007.08.021

20. Minetti GC, Colussi C, Adami R, Serra C, Mozzetta C, Parente V, Fortuni S, Straino S, Sampaolesi M, Di Padova M, Illi B, Gallinari P, Steinkühler C, Capogrossi MC, Sartorelli V, Bottinelli R, Gaetano C, Puri PL. Functional and morphological recovery of dystrophic muscles in mice treated with deacetylase inhibitors. Nature Medicine (2006) Oct;12(10):1147-50. Epub 2006 Sep 17.

21. Bandi, E., Bernareggi, A., Grandolfo, M., Mozzetta, C., Augusti-Tocco, G., Ruzzier, F., & Lorenzon, P. (2005). Autocrine activation of nicotinic acetylcholine receptors contributes to Ca2+ spikes in mouse myotubes during myogenesis. The Journal of physiology, 568, 171–180. doi:10.1113/jphysiol.2005.091439