

**EUROPEAN
CURRICULUM VITAE
FORMAT**

PERSONAL INFORMATION

Name **FORCINA LAURA**

POSITIONS

• 01/08/2019-31/07/2020

Research Fellow
Project : "Counteracting muscle atrophy and wasting: the role of growth factors and inflammatory cytokines"
DAHFMU-Unit of Histology and Medical Embryology
Sapienza University of Rome
Via A. Scarpa, 16
00161 Rome

• 22/03/2019-07/2019

Scientific Collaborator
Project : "Signals from the niche: insights into the role of IGF-1 and IL-6 in modulating skeletal muscle regeneration"
DAHFMU-Unit of Histology and Medical Embryology
Sapienza University of Rome
Via A. Scarpa, 16
00161 Rome

• 01/02/2018-31/01/2019

Research Fellow
Project : "Characterization of the molecular mechanisms associated to muscle atrophy and wasting"
DAHFMU-Unit of Histology and Medical Embryology
Sapienza University of Rome
Via A. Scarpa, 16
00161 Rome

EDUCATION AND TRAINING

• 17th - 20th /10/2019

High Training Course in Advanced Myology
Department of Experimental Medicine
University of Perugia
Piazza dell'Università, 1-06.
123 Perugia, Italy

• 01/02/2018

Ph.D in Morphogenesis and Tissue Engineering
With Honors
Thesis: "Study and modulation of dystrophic microenvironment to improve stem cell-mediated therapy"
DAHFMU-Unit of Histology and Medical Embryology
Sapienza University of Rome
Via A. Scarpa, 16
00161 Rome

•17/12/2013

Master Degree in Biology applied to Biomedical Research

With Honors
Field of study: Neurobiology and ALS
Sapienza University of Rome
Piazzale Aldo Moro 5,
00185 Rome

•23/03/2011

Bachelor Degree in Biology
With Honors
Field of study: Neurobiology
Sapienza University of Rome
Piazzale Aldo Moro 5,
00185 Rome

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE

Italian

OTHER LANGUAGES

English

SOCIAL AND ORGANIZATIONAL SKILLS

I'm highly motivated, able to perform independent studies and experiments as well as function proactively and collegially in a team setting. I have a good ability to troubleshoot complex technical experiments and change procedures when required. I'm creative and I can write papers and projects. I can explain the results and knowledge not only during oral presentations but also by creating figures which have been selected as a cover for international peer-reviewed journals.

TECHNICAL SKILLS AND COMPETENCE

*MOLECULAR AND CELLULAR
BIOLOGY*

- Experience with cell culture techniques, tissue sample preparation and analysis. Experience in histological analysis and techniques, immunohistochemical, immunocytochemical analysis and microscopy. Good experience with confocal microscopy.
- RNA e DNA extraction, PCR e Real Time RT-PCR), protein extraction and western blot analysis. Cytofluorimetric analysis and primary and cell line culture management.
- Field of Study: Physio-pathology of skeletal muscle with a focus on the involvement of muscle microenvironment and stem cell niche in regulating tissue homeostasis. I've studied the impact of anabolic and catabolic factors as IL-6 and IGF-1 on the modulation of skeletal muscle environment. I've focused my research activity on the study of molecular mechanisms underlining muscle degeneration in the field of muscular dystrophies.

ANIMAL MODELS

- Experience in working with animal, management of colonies, animal manipulation and care.
- Course of national legislation on animal care and protection, Direttiva 63/2010 - Modulo Formativo 1 - Dott.ssa Patrizia Costa - 16/02/2016 - DAHFMO-Unit of Histology and Medical Embryology_Sapienza University of Rome

COMPUTER SKILLS

- Microsoft Office (Word, Excel e Power Point, Photoshop)
- Statistic softwares (GraphPad Prism)
- Specific softwares such as Image Lab software (version 5.2.1; Bio-Rad Laboratories©) e LAF AF Lite software (Leica)

GRANTS AND HONORS

Cells Front Cover 2019

For the illustration contained in the paper: Signals from the Niche: Insights into the Role of IGF-1 and IL-6 in Modulating Skeletal Muscle Fibrosis.

Cytokine and Growth Factor Front Cover 2018

For the illustration contained in the paper: The physiopathologic interplay between stem cells and tissue niche in muscle regeneration and the role of IL-6 on muscle homeostasis and diseases.

Avvio alla Ricerca 2018 _ Progetti di Ateneo Sapienza University of Rome_ € 1.050

Project title: "Studying the complex action of IL-6 signaling in the physiopathology of skeletal muscle tissue".

Avvio alla Ricerca 2016 _ Progetti di Ateneo Sapienza University of Rome_ € 1.000

Project Title: "The critical role of mIGF-1 on dystrophic niche: a new potential therapeutic adjuvant of stem cell therapy in DMD".

PUBLICATIONS

Forcina L, Cosentino M, Musarò A. Mechanisms Regulating Muscle Regeneration: Insights into the Interrelated and Time-Dependent Phases of Tissue Healing. *Cells*. 2020;9(5):E1297. Published 2020 May 22. doi:10.3390/cells9051297.

Forcina L, Miano C, Scicchitano BM, Rizzuto E, Berardinelli MG, De Benedetti F, Pelosi L, Musarò A. Increased circulating levels of Interleukin-6 affect the redox balance in skeletal muscle. *Oxidative Medicine and Cellular Longevity*. 2019 Nov 16;2019:3018584. doi: 10.1155/2019/3018584. eCollection 2019.

Forcina L, Miano C, Scicchitano BM, Musarò A. Signals from the Niche: Insights into the Role of IGF-1 and IL-6 in Modulating Skeletal Muscle Fibrosis. *Cells*. 2019 Mar 11;8(3). pii: E232. doi: 10.3390/cells8030232

Forcina L, Miano C, Pelosi L, Musarò A. An Overview About the Biology of Skeletal Muscle Satellite Cells. *Current Genomics*. 2019; 20 (1):24-37. doi: 10.2174/1389202920666190116094736

Forcina L, Miano C, Musarò A. The physiopathologic interplay between stem cells and tissue niche in muscle regeneration and the role of IL-6 on muscle homeostasis and diseases. *Cytokine Growth Factor Rev*. 2018 Jun; 41:1-9. doi: 10.1016/j.cytogfr.2018.05.001. Epub 2018 May 18.

Forcina L, Pelosi L, Miano C, Musarò A. Insights into the pathogenic secondary symptoms caused by the primary loss of dystrophin. *Journal of Functional Morphology and Kinesiology*. 2017, 2(4), 44; doi:10.3390/jfkm2040044

Pelosi L, Forcina L, Nicoletti C, Scicchitano BM, Musarò A. Increased Circulating Levels of Interleukin-6 Induce Perturbation in Redox-Regulated Signaling Cascades in Muscle of Dystrophic Mice. *Oxidative Medicine and Cellular Longevity*. 2017;2017:1987218. doi: 10.1155/2017/1987218. Epub 2017 Aug 6.

Petrillo S, Pelosi L, Piemonte F, Travaglini L, Forcina L, Catteruccia M, Petrini S, Verardo M, D'Amico A, Musarò A, Bertini E. Oxidative stress in Duchenne muscular dystrophy: focus on the NRF2 redox pathway. *Human Molecular Genetics*. 2017 Jul 15;26(14):2781-2790. doi: 10.1093/hmg/ddx173.

Pelosi L, Berardinelli MG, Forcina L, Spelta E, Rizzuto E, Nicoletti C, Camilli C, Testa E, Catizone A, De Benedetti F, Musarò A. Increased levels of interleukin-6 exacerbate the dystrophic phenotype in mdx mice. *Human Molecular Genetics*. 2015 Nov 1;24(21):6041-53. doi: 10.1093/hmg/ddv323. Epub 2015 Aug 6.

Pelosi L, Coggi A, Forcina L, Musarò A. MicroRNAs modulated by local mIGF-1 expression in mdx dystrophic mice. *Frontiers in Aging Neuroscience*. 2015 May 5;7:69. doi: 10.3389/fnagi.2015.00069. eCollection 2015.

01/08/2020

