

## CURRICULUM VITAE

**Name:** Pura Muñoz-Cánoves **Birth date:** 30 August 1962

**Current Position:** ICREA Senior Research Professor  
Cell Biology Professor at Pompeu Fabra University (UPF), Barcelona  
Principal Investigator, Cell Biology Unit (UPF, Barcelona)  
Date of Start: 01/01/2009

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### University Education and Research Training

1980-1985 Degree in Pharmacology (Licenciatura en Farmacia) – School of Pharmacy, Universidad de Valencia  
1985-1986 Postgraduate studies (Tesina de Licenciatura) -School of Pharmacy, Universidad de Valencia  
1986-1990 Predoctoral Student. Dept. Immunology, The Scripps Research Institute (La Jolla, CA, USA)  
1990-1991 Postdoctoral fellow, Dept. Pharmacology, University of California, San Diego (San Diego, CA, USA)  
1991-1993 Postdoctoral fellow, Dept. Molecular Biology, The Scripps Research Inst (La Jolla, CA, USA).  
1993-1994 Postdoctoral fellow. DIBIT-San Raffaele (Milan, Italy)  
1995-1997 Postdoctoral fellow, Cancer Research Institute (IRO) (Barcelona, Spain)

### Career-related Positions

1997-2002 Group Leader, Cancer Research Institute (IRO), Barcelona, Spain  
2002-2006 Group Leader, Center for Genomic Regulation (CRG), Barcelona, Spain  
2007-2008 Senior Group Leader, Center for Genomic Regulation, Barcelona, Spain  
2009-Pres ICREA Research Professor and Cell Biology Professor. Dept. of Experimental and Health Sciences, Pompeu Fabra University, Barcelona, Spain

### Awards and Distinctions

2009 Professor of Cell Biology at the Pompeu Fabra University  
2005-pres Group of Excellence Award from the Catalan Government (AGAUR)  
2015 City of Barcelona Award on Life Sciences (Premio Ciudad de Barcelona - Ciencias de la Vida).  
2015, 2017 La Vanguardia of Science Award (Premio La Vanguardia de la Ciencia)  
2015 Pfizer Award on Basic Research  
2015 Elected EMBO (European Molecular Biology Organization) Member

### Scientific Activities

#### Editorial Boards, Editorial Activities

2010-Pres Editor of *The FEBS Journal*  
2010-Pres Editorial Board and Founding Member of *Skeletal Muscle* (Biomed Central Journal)  
2014-Pres Advisory Board Member of *Oncotarget and Gerotarget*. Section in Aging/Age-related diseases  
2011-Pres Member of the European Federation for Systematic Stem Cell Biology (EuroStemCell)  
2013 Editor of the Special Issue on Muscle Stem Cells of *The FEBS Journal*  
2015 Editor of the Special Issue on Stem cells in muscle aging *Frontiers in Cell and Developmental Biology*  
2015 Editor of the Special Issue on Epigenetics of *The FEBS Journal*

#### Manager of Scientific Evaluating Panels (Study Sections)

2009-2012 Scientific Manager (“Gestor”) of the Spanish National Plan on Biomedicine (SAF),  
2005-2009 Adjunct to the Coordinator of the Spanish National Evaluation Agency (ANEP). Mol. Cell Biol Area  
2012-pres Member of Scientific Council of the Association Française contre les Myopathies (AFM)  
2004-pres Member of the Ethical Committee for Human Stem Cell Therapies - CEIC of CMRB, Barcelona  
2009 Panel Reviewer of Plan E on Biomedicine-Infrastructure (Spain), MICINN - International Relations  
2009 Panel Reviewer of ESFRI projects European Union/Spain, MICINN - International Relations

### Peer-reviewing Activities

- 2000-pres Peer-reviewer for Nature, Nature Genet, Cell Stem Cell, Dev. Cell, Nature Cell Biol, J. Exp. Med, J. Clin. Invest, EMBO J, J. Cell Biol, J. Cell Science, Stem Cells, I review about 30 manuscripts per year.
- 2000-pres Reviewer of Research Grants for: Spanish MINECO and FIS, French ANR, Muscular Dystrophy Associations of USA, France and UK, Italian Telethon, Wellcome Trust (UK, among others).
- 2000-pres Member of Doctoral Thesis Committees (about 10 PhD Thesis per year)

### Organization of International Conferences

- 2008 Organizer of EMBO Conference on Mechanisms regulating Muscle Regeneration". Held in Girona,
- 2011 Organizer of the Indo-Spanish Workshop on Health and Medical Research –Held in New Delhi, India.
- 2012 Organizer of the Workshop on Regenerative Medicine and Aging (MyoAge). Held in Barcelona.
- 2013 Organizer of the Workshop on Muscle Stem Cells (EndoStem). Held in Sitges..

### Selected Publications from Last 10 Years

García-Prat L, Martínez-Vicente M, Perdiguero E, Ortet L, Garcia-Ubreva J, Rebollo E, Ruiz-Bonilla V, Gutarra S, Ballestar E, Serrano AL, Sandri M, **Muñoz-Cánoves P**. Autophagy maintains stemness by preventing senescence. **Nature** 529: 37-42, 2016

Pessina P, Kharraz Y, Jardí M, Fukada SI, Serrano AL, Perdiguero E, **Muñoz-Cánoves P**. Fibrogenic cell plasticity blunts tissue regeneration and aggravates muscular dystrophy. **Stem Cell Reports** 4:1046-60, 2015

Sousa-Victor P, García-Prat L, Serrano AL, Perdiguero E, **Muñoz-Cánoves P**. Muscle stem cell aging: regulation and rejuvenation. **Trends in Endocrinology and Metabolism** 26:287-296, 2015

Sousa-Victor P, Gutarra S, García-Prat L, Rodríguez-Ubreva J, Ortet L, Ruiz-Bonilla V, Jardí M, Ballestar E, González S, Serrano AL, Perdiguero E, **Muñoz-Cánoves P**. Geriatric muscle stem cells switch reversible quiescence into senescence. **Nature** 506:316-21, 2014

Vidal B, Ardite E, Suelves M, Ruiz-Bonilla V, Janué A, Flick J, Degen JL, Serrano AL, **Muñoz-Cánoves P**. Amelioration of Duchenne muscular dystrophy in mdx mice by elimination of matrix-associated fibrin-driven inflammation coupled to the alphaMbeta2 leukocyte integrin receptor. **Human Molecular Genetics** 21:1989-2004, 2012.

Ardite E, Perdiguero E, Vidal E, Gutarra S, Serrano AL, **Muñoz-Cánoves P**. PAI-1-regulated miR-21 defines a novel age-associated fibrogenic pathway in muscular dystrophy. **Journal of Cell Biology** 196:163-75, 2012

Perdiguero E, Sousa-Victor P, Ruiz-Bonilla V, Jardí M, Caelles C, Serrano A.L, **Muñoz-Cánoves P**. p38/MKP-1-regulated AKT coordinates macrophage transitions and resolution of inflammation during tissue repair. **Journal of Cell Biology** 195:307-22, 2011

Serrano AL, Baeza-Raja B, Perdiguero E, Jardí M, **Muñoz-Cánoves P**. Interleukin-6 is an essential regulator of satellite cell-mediated skeletal muscle hypertrophy. **Cell Metabolism** 7:33-44, 2008

Vidal B, Serrano AL, Tjwa M, Suelves M, Ardite E, De Mori R, Baeza-Raja B, Martínez de Lagrán M, Lafuste P, Ruiz-Bonilla V, Jardí M, Gherardi R, Christov C, Dierssen M, Carmeliet P, Degen JL, Dewerchin M, **Muñoz-Cánoves P**. Fibrinogen drives dystrophic muscle fibrosis via a TGFbeta/alternative macrophage activation pathway. **Genes & Development**. 22:1747-52, 2008

Suelves M, Vidal B, Serrano AL, Tjwa M, Roma J, López-Alemán R, Luttun A, de Lagrán MM, Díaz-Ramos A, Jardí M, Roig M, Dierssen M, Dewerchin M, Carmeliet P, **Muñoz-Cánoves P**. uPA deficiency exacerbates muscular dystrophy in mdx mice. **Journal of Cell Biology** 178:1039-51, 2007

Perdiguero E, Ruiz-Bonilla V, Gresh L, Hui L, Ballestar E, Sousa-Victor P, Baeza-Raja B, Jardí M, Bosch-Comas A, Esteller M, Caelles C, Serrano AL, Wagner EF, **Muñoz-Cánoves P**. Genetic analysis of p38 MAP kinases in myogenesis: fundamental role of p38alpha in abrogating myoblast proliferation. **EMBO Journal** 7:1245-56, 2007

Lluís F, Ballestar E, Suelves M, Esteller M, Sartorelli V, **Muñoz-Cánoves P**. E47 phosphorylation by p38 MAP kinase promotes MyoD/E47 association and muscle-specific gene transcription **EMBO Journal** 24: 974-984, 2005

Suelves M., Lluís F, Ruiz V, Nebreda AR, **Muñoz-Cánoves P**. Phosphorylation of the transactivation domain of MRF4 by p38 MAPK mediates repression of specific myogenic genes. **EMBO Journal** 33: 365-375, 2004.