

# Giulio Cossu : *Curriculum Vitae*

---

## Education:

Maturità Classica, Rome, 1972; MD Degree, with Honors 1977

## Current Positions:

2013- : Constance Thornley Professor of Regenerative Medicine, University of Manchester

## Previous appointments:

2013-2015: Honorary Professor of Human Stem Cell Biology, University College London

2012-2013: Professor of Human Stem Cell Biology, University College London

2008-2011: Director, Division of Regenerative Medicine, San Raffaele Scientific Institute, Milan

2005-2011: Professor of Histology and Embryology, University of Milan

2000-2008: Director of the "Stem Cell Research Institute", San Raffaele, Milan.

2003-2006: Scientific Director of the San Raffaele Biomedical Science Park of Rome.

1994-2005: Professor of Histology and Medical Embryology, II° Medical School, University of Rome "La Sapienza"

1993-1994: Visiting Professor. Dept. of Molecular Biology, Institut Pasteur, Paris

1986-1993: Associate Professor, Dept. of Histology and Medical Embryology, University of Rome "La Sapienza"

1983-1986: Researcher, Institute Histology, University of Rome "La Sapienza"

## Post-doctoral training:

1980-1983: USPHS Fogarty Fellow, Wistar Institute, University of Pennsylvania

1978-1980: CNR Fellow, Institute Histology, University of Rome "La Sapienza"

## Areas of interest:

Myogenic cell lineages; Myogenic determination; Muscle gene and cell therapy, Multipotent stem cells.

## Scientific Societies and Committees:

2016: Member of the Scientific Advisory Board of the Italian National Research Council  
2016: Member of the Scientific Advisory Board, Department of Biomedicine, Basel University  
2013-: Fellow of the Accademia dei Lincei  
2013-: Fellow of the Academy of Medical Sciences  
2011-: Member of the European Academy of Sciences  
2011-2014: Member of the Committee for Advanced Therapy (CAT) of EMA  
2008- 2014: Chair and Member, Panel LS7, European Research Council  
2008- 2011: Directory Board of the International Society of Differentiation.  
2008-: Senior Editor, EMBO Molecular Medicine  
2008: ISSCR Task Force for "Clinical Translation of Stem Cell Research"  
2006-: Associate Editor, International Journal of Developmental Biology  
2004-2014: Editorial Board, Cell Death & Differentiation  
2004-: Editorial Board, Journal of Cell Science  
2003-2011: Member of the TIGEM External Scientific Advisory Board.  
2002-2005: Directory Board of the International Society for Stem Cell Research.  
2003-2006: Chairperson, Stem Cell Committee, European Society of Gene Therapy  
1998-2001: President, ABCD (Italian Society for Cell Biology and Differentiation)  
1998-2001: Secretary, FISV (Italian Federation of Life Sciences)  
1997-: EMBO Member

## Clinical activity:

2016-2018: PI of a "first in man" Phase I/IIa of autologous, genetically corrected stem cell transplantation in Duchenne Muscular Dystrophy

2011-2014: PI of a "first in man" Phase I/IIa of donor, HLA-matched stem cell transplantation in Duchenne Muscular Dystrophy

2009-2011: PI of an observational study on the progress of Duchenne Muscular Dystrophy in ambulant patients.

## Teaching activities:

1996 - Developmental Biology; Differentiation and Cell Therapy; Bioethics; Cellular and Molecular Pathology; Stem Cells; Histology and Embryology; Post-graduate Medical Schools in Cardiology, Neurology, Obstetrics and Gynecology

#### Seminars and Meetings:

- EMBO Conference: Cell therapy today: achievements, hopes and hypes, Manchester Sept. 9-13, 1025. **Organizer.**
- EMBO Workshop on "Advances in Stem Cell Research", Paris April 6-8, 2011, **Co-organizer.**
- Gordon Research Conference "Myogenesis", Il Ciocco, Lucca, May 2004. **Chairperson.**
- Gordon Research Conference on "Myogenesis", Il Ciocco, Lucca, May 2001. **Vice-Chairperson.**
- EMBO Workshop on "Molecular Biology and Pathology of myogenesis", Baia di Conte, September 1992, **Organizer.**
- Speaker and/or Chairperson in most major meetings in the field of Stem Cell and Myogenesis. Seminars held in many Italian, European and North American Institutions.

#### Prizes and Awards:

- Galileo Prize for excellence in scientific research, City of Padua 2003.
- Stella d'oro per la Medicina, Rome 2005.
- Prize for excellence in Research, Medical Academy of Turin, 2007.
- Jean Brachet Memorial Lecture (ISD) Keystone Symposium "Stem Cells Cancer and Ageing", Singapore 28.09.2008.
- Feltrinelli prize (Accademia dei Lincei) for science, 2011

#### Funding:

Success in securing funds for research is demonstrated by more than 10 EC networks, three of which as Coordinator and many other competitive international grants such as for example the ERC Advanced Investigator Grant (2008). Overall, GC has secured more than 10 M€ for his research in the last decade. A partial list of grants is pasted below:

*Wellcome Trust Health Innovation Challenge Fund, 2015; British Heart Foundation 2014; Medical Research Council 2012, 2016; European Research Council (Advanced Investigator Award) 2008; European Community: 1992, 1993, 1995 (coordinator) 1998, 1999 (coordinator), 2003, 2005, 2005, 2006, 2008 (coordinator), 2009, 2010, 2011, 2012, 2013; Muscular Dystrophy Association (USA): 2004; Association Francaise contra les myopathies: 2001, 2004, 2005, 2006, 2007, 2008, 2009; CureDuchenne: 2007; Duchenne Parent Project: 2003, 2005, 2007, 2010, 2012, 2016; Telethon (Italy):1998, 2000, 2003, 2005, 2008, 2009, 2010, 2011; Italian Ministry of Research:1997, 1999, 2001, 2003, 2005, 2007, 2009; Italian Ministry of Health: 2000, 2002, 2004, 2006, 2008, 2009.*

#### Patents:

1 - Cossu, G, Dejana, E "Method to induce the differentiation of endothelial cells to cardiomyocytes" WO03023022 - Science Park RAF spa, Priority Date 11/09/2001; 2 - Cossu, G, Cusella-De Angelis, MG "Method for establishing and expanding multipotent stem cells" WO03095631 - Fondazione Centro San Raffaele del Monte Tabor, Priority Date 13/05/2002; 3 - Clementi, E, Cossu, G, Brunelli, S, Ongini, E "Use of nitrooxyderivative of drug for the treatment of muscular dystrophies " WO2007088123- Nicox s.a. 2007; 4 - Clementi, E, Cossu, G, Brunelli, S "Method of treatment for muscular dystrophy WO2007088050 - Fondazione Centro San Raffaele del Monte Tabor. Priority Date 03/02/2006; 5 - Cossu, G, Gonzalez Galvez, B, Tonlorenzi, R "Skeletal muscle periangioblasts and cardiac mesangioblasts, method for isolation and uses thereof" WO2007093412 - Fondazione Centro San Raffaele del Monte Tabor. Priority Date 16/02/2006.

#### Training and Mentoring

More than 60 undergraduate, graduate students and post-doctoral fellows have been trained since 1982. Many of these are now Professors or Researchers in various European Universities (e.g. Catholic University of Leuven, Trinity College in Dublin, Pavia, Rome, Milan and Research centers, eg. Istitut Pasteur, Istitut Monod, Istituto Superiore di Sanità etc.)

#### Publications (selected out of 213. H index: 63):

- Rossi et al. 2016. Nfix regulates temporal progression of muscle regeneration through modulation of Myostatin expression. **Cell Reports** 14, 2338-49. - Cossu et al. 2015. Intra-arterial transplantation of HLA-matched donor mesoangioblasts in Duchenne Muscular Dystrophy. **EMBO Mol. Med.** 7(12):1513-28; - Giannotta et al. 2014 Targeting endothelial Junctional Adhesion Molecule-A/ EPAC/ Rap-1 axis as a novel strategy to increase stem cell engraftment in dystrophic muscles. **Embo Mol Med.** 6:239-58. Cappellari et al. 2013. Dll4 and PDGF-BB convert committed skeletal myoblasts to pericytes without erasing their myogenic memory. **Developmental Cell** 24:586-99; - Tedesco et al. 2012. Transplantation of Genetically Corrected Human iPSC-Derived Progenitors in Mice with Limb-Girdle Muscular Dystrophy. **Science Translational Medicine** 4:140ra89; - Dellavalle et al. 2011. Pericytes resident in post-natal skeletal muscle differentiate into muscle fibers and generate satellite cells. **Nature Comm.**;2:499. doi: 10.1038/ncomms1508; - Tedesco et al. 2011. Stem Cell-Mediated Transfer of a Human Artificial Chromosome Ameliorates Muscular Dystrophy. **Science Translational Medicine** 3(96):96ra78; - Messina et a. 2010. Nfix regulates fetal specific transcription in developing skeletal muscle. **Cell** 140, 554-566;- Gargioli et al. 2008. PIGF-MMP9 expressing cells restore microcirculation and efficacy of cell therapy in old dystrophic muscle. **Nature Med.** 14:973-8. 38.; - Dellavalle et al. 2007. Pericytes of human skeletal muscle are myogenic precursors distinct from satellite cells. **Nature Cell Biol.** 9:255-267; - Sampaolesi et al. 2006. Mesoangioblast stem cells ameliorate muscle function in dystrophic dogs.

**Nature**, 444:574-9; - Sampaolesi et al. 2003. Cell therapy of alpha sarcoglycan null dystrophic mice through intra-arterial delivery of mesoangioblasts. **Science** 301, 487-492; - Galli et al 2000. Skeletal myogenic potential of human and mouse neural stem cells. **Nature Neurosci.** 3:986-91; - Ferrari et al 1998. Muscle regeneration by bone marrow-derived myogenic progenitors. **Science** 279:1528-30.