

Daniele Torella is a MD, PhD, Full Professor of Cardiology at the Magna Graecia University, Catanzaro, Italy. He graduated in Medicine in 1998 at “Federico II” University, Naples, Italy. In 2002 he finished his residency in Cardiology in the Board of Cardiology at “Federico II” University, Naples, Italy. In 2006, he obtained the PhD in Cardiovascular Physiopathology in the Clinical Physiopathology PhD School, “Federico II” University, Naples, Italy. He has worked from 2002 to 2004 as researcher and then as Instructor of Medicine at the Cardiovascular Institute, Department of Medicine, New York Medical College, Valhalla, New York, U.S.A. From 2005 to 2006 he has been visiting Scientist in the Laboratory of Dr. B. Nadal-Ginard at the Cardiovascular Institute, Mount Sinai School of Medicine, New York, NY, U.S.A. From 2006 to 2014, he has been Senior Lecturer and then Reader at the Laboratory of Cellular and Molecular Physiology, RISES, Liverpool John Moores University, Liverpool, UK. From 2006 to 2010 he has been Assistant Professor and then from 2010 to 2016 Associate Professor of Cardiology at Magna Graecia University, Catanzaro, Italy. From 2016 to 2019 he has been Full Professor of Biotechnology. Since 2019, he is the Coordinator of the PhD School in Biomarkers of Chronic and Complex Diseases at Magna Graecia University, Catanzaro, Italy. He received the following main awards: 2009, Scholar in Cardiology from the Italian Society of Cardiology; 2009, Young Investigator Award - Basic Science from the European Society of Cardiology; 2010, Fellow of the European Society of Cardiology, Congress of the European Society of Cardiology. He has received as Principal Investigator the following main research grants: Principal Investigator: PRIN2007, AIRC MFAG 2008, FIRB Futuro in Ricerca 2008, Ricerca Finalizzata-Giovane Ricercatore Ministero della Salute 2008, Commissione Europea 7° Programma Quadro 2009 progetto CARE-MI, FIRB Futuro in Ricerca 2010-2012, Ricerca Finalizzata-Giovane Ricercatore Ministero della Salute 2010-2012, iCARE-Programma Operativo Nazionale (PON) Ricerca e Competitività 2007-2013, PRIN2015 and PRIN 2017. He has published over 110 papers with a total IF of 838, 10149 citations and a H-Index of 42. He argues actively in favor of the developmental plasticity of the adult heart. His main area of research is on cardiac stem cell biology and their regenerative potential.

Main 10 Publications:

1. Beltrami AP, Barlucchi L, **Torella D**, Baker M, Limana F, Chimenti S, Kasahara H, Rota M, Musso E, Urbanek K, Leri A, Kajstura J, Nadal-Ginard B, Anversa P. Adult cardiac stem cells are multipotent and support myocardial regeneration. *Cell*. 2003; 114: 763-76.
2. **Torella D**, Rota M, Nurzynska D, Musso E, Monsen A, Shiraishi I, Zias E, Walsh K, Rosenzweig A, Sussman MA, Urbanek K, Nadal-Ginard B, Kajstura J, Anversa P, Leri A. Cardiac stem cell and myocyte aging, heart failure, and insulin-like growth factor-1 overexpression. *Circ Res*. 2004; 94: 514-24.
3. Urbanek K*, **Torella D***, Sheikh F, De Angelis A, Nurzynska D, Silvestri F, Beltrami CA, Bussani R, Beltrami AP, Quaini F, Bolli R, Leri A, Kajstura J, Anversa P. Myocardial regeneration by activation of multipotent cardiac stem cells in ischemic heart failure. *Proc Natl Acad Sci U S A*. 2005;102:8692-7.
4. Ellison GM*, **Torella D***, Karakikes I, Purushothaman S, Curcio A, Gasparri C, Indolfi C, Cable NT, Goldspink DF, Nadal-Ginard B. Acute beta -adrenergic overload produces myocyte damage through calcium leakage from the ryanodine receptor 2 (RYR2) but spares cardiac stem cells. *J Biol Chem*. 2007; 282:11397-11409. *equally contributed.
5. Ellison GM*, **Torella D***, Dellegrottaglie S, Perez-Martinez C, Perez de Prado A, Vicinanza C, Purushothaman S, Galuppo V, Iaconetti C, Waring CD, Smith A, Torella M, Cuellas Ramon C, Gonzalo-Orden JM, Agosti V, Indolfi C, Galiñanes M, Fernandez-Vazquez F, Nadal-Ginard B. Endogenous cardiac stem cell activation by insulin-like growth factor-1/hepatocyte growth factor intracoronary injection fosters survival and regeneration of the infarcted pig heart. *J Am Coll Cardiol*. 2011;58:977-86.*equally contributed.

6. **Torella D**, Iaconetti C, Catalucci D, Ellison GM, Leone A, Waring CD, Bochicchio A, Vicinanza C, Aquila I, Curcio A, Condorelli G, Indolfi C. MicroRNA-133 Controls Vascular Smooth Muscle Cell Phenotypic Switch In Vitro and Vascular Remodeling In Vivo. *Circ Res*. 2011;109:880-93.
7. Ellison GM, Vicinanza C, Smith AJ, Aquila I, Leone A, Waring CD, Henning BJ, Stirparo GG, Papait R, Scarfò M, Agosti V, Viglietto G, Condorelli G, Indolfi C, Ottolenghi S, **Torella D***, Nadal-Ginard B*. Adult c-kit(pos) cardiac stem cells are necessary and sufficient for functional cardiac regeneration and repair. *Cell*. 2013;154:827-42. *shared seniorship and corresponding author.
8. Vicinanza C, Aquila I, Scalise M, Cristiano F, Marino F, Cianflone E, Mancuso T, Marotta P, Sacco W, Lewis FC, Couch L, Shone V, Gritti G, Torella A, Smith AJ, Terracciano CM, Britti D, Veltri P, Indolfi C, Nadal-Ginard B, Ellison-Hughes GM, **Torella D**. Adult cardiac stem cells are multipotent and robustly myogenic: c-kit expression is necessary but not sufficient for their identification. *Cell Death Differ* 2017; 24:2101–16.
9. Vicinanza C, Aquila I, Cianflone E, Scalise M, Marino F, Fumagalli F, Giovannone ED, Cristiano F, Iaccino E, Torella A, Latini R, Agosti V, Veltri P, Urbanek K, Isidori AM, Saur D, Indolfi C, Nadal-Ginard B, **Torella D**. c-kit Cre Knock-ins Fail to Fate-Map Cardiac Stem Cells. *Nature*. 2018 Mar 21;555(7697):E1-E5.
10. Scalise M, Torella M, Marino F, Ravo M, Giurato G, Vicinanza C, Cianflone E, Mancuso T, Aquila I, Salerno L, Nassa G, Agosti V, De Angelis A, Urbanek K, Berrino L, Veltri P, Paolino D, Mastroberto P, De Feo M, Viglietto G, Weisz A, Nadal-Ginard B, Ellison-Hughes GM, **Torella D**. Atrial myxomas arise from multipotent cardiac stem cells. *Eur Heart J*. 2020 Apr 24;ehaa156. doi: 10.1093/eurheartj/ehaa156.

