



AL MAGNIFICO RETTORE
DELL'UNIVERSITA' DEGLI STUDI DI MILANO

COD. ID: 3972

Il sottoscritto chiede di essere ammesso a partecipare alla selezione pubblica, per titoli ed esami, per il conferimento di un assegno di ricerca presso il Dipartimento di Fisiopatologia Medico Chirurgica e dei Trapianti, responsabile scientifico il Prof. Yvan Torrente

[Nome e cognome]

CURRICULUM VITAE

INFORMAZIONI PERSONALI

Cognome	VILLA
Nome	CHIARA
Data Di Nascita	10 AGOSTO 1982

OCCUPAZIONE ATTUALE

Incarico	Struttura
ASSEGNISTA DI RICERCA DI TIPO B DI DURATA ANNUALE	LABORATORIO CELLULE STAMINALI, DIPARTIMENTO DI FISIOPATOLOGIA MEDICO CHIRURGICA E DEI TRAPIANTI-UNIVERSITA' DEGLI STUDI DI MILANO

ISTRUZIONE E FORMAZIONE

Titolo	Corso di studi	Università	anno conseguimento titolo
Laurea Magistrale o equivalente	INGEGNERIA BIOMEDICA	POLITECNICO DI MILANO	2007
Dottorato Di Ricerca	MEDICAL NANOTECHNOLOGIES	SEMM	2015

LINGUE STRANIERE CONOSCIUTE

lingue	livello di conoscenza
INGLESE	ECCELLENTE

PREMI, RICONOSCIMENTI E BORSE DI STUDIO

anno	Descrizione premio
2017	Paolo Bianco Award- Società Italiana Cellule Staminali

ATTIVITÀ DI FORMAZIONE O DI RICERCA

descrizione dell'attività



ATTIVITÀ PROGETTUALE

Anno	Progetto
2012-2014	PhD Fellowship at Diabetes Research Institute, University of Miami, Miller School of Medicine. The project addressed most issues related to immunoisolation of pancreatic islets through microencapsulation for transplantation.

CONGRESSI, CONVEGNI E SEMINARI

Nasser S., Asnaghi A., Tomè C., Villa C., Mantero S. "Design and characterization of a porous biodegradable scaffold for bone tissue engineering" TOKYO TERMIS-AP 2007 (TISSUE ENGINEERING INTERNATIONAL & REGENERATIVE MEDICINE SOCIETY ASIA-PACIFIC CHAPTER MEETING 2007).

Villa C., Erratico S., Razini P., Parolini D., Milani P., Belicchi M., Torrente Y. "Muscle Cell sheet-polymer film generation and transplantation for the treatment muscular dystrophy" TERMIS 2WORLD CONGRESS SEOUL 31 AUG-3SEP 2009

Erratico S., Belicchi M., Villa C., Razini P., Meregalli M., Lenardi C., Milani P., Torrente Y. "Development of new technologies inducing myogenic differentiation of human circulating Cd133+ cells" KEYSTONE SYMPOSIA 15-20 feb 2010

Villa C., Erratico S., Razini P., Belicchi M., Torrente Y. "Expanded muscle derived stem cells-chitosan sheet transplantation for the treatment of muscular dystrophy". TERMIS EU MEETING 13-17jun 2010 (ORAL PRESENTATION)

Razini P., Belicchi M., Erratico S., Villa C., Albertini G., Rustichelli F., Torrente Y. "Xray synchrotron radiation phase contrast analysis of human and mouse progenitors in culture of engineering scaffolds" TERMIS EU MEETING 13-17 Jun 2010

Villa C., Torrente Y. "In vivo tracking of superparamagnetic iron oxide nanoparticle-labeled cd133+ stem cell tropism to dystrophic muscle tissues using micro-ct imaging" (ORAL PRESENTATION). TERMIS EU MEETING GRANADA, SPAIN 2011

Villa C., Erratico S., Torrente Y. "Thermoresponsive material for muscle cell sheet engineering" KEYSTONE SYMPOSIUM REGENERATIVE TISSUE ENGINEERING AND TRANSPLANTATION, 1-6 April 2012, Beaver Run resort-Breckenridge Colorado

Villa C., Erratico S., Torrente Y. "Thermoresponsive material for muscle cell sheet engineering" (ORAL PRESENTATION) KEYSTONE SYMPOSIUM REGENERATIVE TISSUE ENGINEERING AND TRANSPLANTATION, 1-6 April 2012, Beaver Run resort-Breckenridge Colorado

Tomei A.A., Najjar M., Manzoli V., Villa C., Martino M.M., Molano D., Pileggi A., Inverardi L., Ricordi C., Hubbell J. "Engineered fibrin gels improve outcome of islet transplantation in the subcutaneous and epididymal



fat pad sites in mice” ADA 2013, Chicago US

Tomei A.A., Manzoli V., Villa C., Fraker C., Giraldo J., Velluto D., Pileggi A., Molano D., Inverardi L., Ricordi C., Stabler C., Hubbell J. “Microencapsulation of pancreatic islets through conformal coating or through standard alginate capsules for transplantation in absence of systemic immunosuppression in mice”. CTS 2013, Milan, Italy.

A. Farini, C. Sitzia, B. Cassani B, R. Rigoni, N. Fusco, S. Gatti, P. Bella, C. Villa, F. Napolitano, R. Maiavacca, S. Bosari, A. Villa, Y. Torrente. “Therapeutic Potential of Immunoproteasome Inhibition in DMD”. INGM - POLICLINICO 3rd RESEARCH DAY. Padiglione Invernizzi, Fondazione IRCCS Ca’ Granda Ospedale Maggiore Policlinico. Milano, Italy.2016

Meregalli M., Villa C., Banfi S., Belicchi M., Erratico S., Torrente Y. “Combining multiple therapeutic strategies for Friedreich’s ataxia (FRDA): antioxidant metallic nanoclusters as adjuvants for gene and stem cell therapy”. IARC 2016. Pisa, Italy.

P. Frattini, C.Villa, F. De Santis, M. Meregalli, M. Belicchi, S. Erratico, P. Bella, M. T. Raimondi, Q. Lu and Y. Torrente. “Autologous intramuscular transplantation of engineered satellite stem cells induces exosome-mediated systemic expression of Fukutin-Related Protein and rescues disease phenotype in a murine model of Limb-Girdle Muscular Dystrophy Type 2I” (ORAL PRESENTATION). VIII Meeting stem cell research Italy, 2017.Chieti, Italy.

PUBBLICAZIONI

I.Villa, C. Villa, A. Monguzzi, V. Babin, E. Tervoort, M. Nikl, M. Niederberger, Y. Torrente, A. Vedda A. Lauria. Demonstration of cellular imaging by using luminescent and anti-cytotoxic europium-doped hafnia nanocrystals. *Nanoscale*. 2018 May 3;10(17):7933-7940. doi: 10.1039/c8nr00724a.

C. Villa, M. Campione, B. Santiago-González, F. Alessandrini, S. Erratico, I. Zucca, M.G. Bruzzone, L. Forzenigo, P. Malatesta, M. Mauri, E. Trombetta, S. Brovelli, Y. Torrente, F. Meinardi and A. Monguzzi. Self-Assembled pH-Sensitive Fluoromagnetic Nanotubes as Archetype System for Multimodal Imaging of Brain Cancer. *Adv. Funct. Mater.* 2018, 1707582

V. Manzoli, C. Villa, A.L. Bayer, L.C. Morales, R.D. Molano, Y. Torrente, C. Ricordi, J. Hubbell, A.A. Tomei. Immunoisolation of murine islet allografts in vascularized sites through conformal coating with polyethylene glycol. *Am J Transplant*. 2017 Oct 25. doi: 10.1111/ajt.14547

B. Santiago-Gonzalez, A. Monguzzi, M. Caputo, C. Villa, M. Prato, C. Santambrogio, Y. Torrente, F. Meinardi, S. Brovelli. Metal Nanoclusters with Synergistically Engineered Optical and Buffering Activity of Intracellular Reactive Oxygen Species by Compositional and Supramolecular Design. *Sci. Rep.* 2017 Jul 20;7(1):5976.

P. Frattini, C. Villa, F. De Santis, M. Meregalli, M. Belicchi, S. Erratico, P. Bella, M.T. Raimondi, Q. Lu and Y. Torrente. Autologous intramuscular transplantation of engineered satellite cells induces exosome-mediated systemic expression of Fukutin-Related Protein and rescues disease phenotype in a murine model of Limb-



Girdle Muscular Dystrophy Type 2I. *Hum Mol Genet.* 2017 Jun 29.

S. Mattiello, A. Monguzzi, J. Pedrini, M. Sassi, C. Villa, Y. Torrente, R. Marotta, F. Meinardi, L. Beverina. Self-Assembled Dual Dye-Doped Nanosized Micelles for High-Contrast Up-Conversion Bioimaging. *Advanced Functional Materials.* Volume 26, Issue 46, 13 December 2016, Pages 8447-8454

C. Sitzia, A. Farini, L. Jardim, P. Razini, M. Belicchi, L. Cassinelli, C. Villa, S. Erratico, D. Parolini, P. Bella, J.C. da Silva Bizario, L. Garcia, M. Dias-Baruffi, M. Meregalli, Y. Torrente. Adaptive Immune Response Impairs the Efficacy of Autologous Transplantation of Engineered Stem Cells in Dystrophic Dogs. *Mol Ther.* 2016 Oct 4. doi: 10.1038/mt.2016.163

A. Farini, C. Sitzia, B. Cassani, L. Cassinelli, R. Rigoni, F. Colleoni, N. Fusco, S. Gatti, P. Bella, C. Villa, F. Napolitano, R. Maiavacca, S. Bosari, A. Villa, Y. Torrente Therapeutic Potential of Immunoproteasome Inhibition in Duchenne Muscular Dystrophy. *Mol Ther.* 2016 Sep 27. doi: 10.1038/mt.2016.162

C. Villa, V. Manzoli, M.M. Abreu, C.A. Verheyen, M. Seskin, M. Najjar, R.D. Molano, Y. Torrente, C. Ricordi, A.A. Tomei Effects of Composition of Alginate-Polyethylene Glycol Microcapsules and Transplant Site on Encapsulated Islet Graft Outcomes in Mice. *Transplantation.* 2016 Aug 12.

Tomei AA, Villa C., Ricordi C. Development of an Encapsulated Stem Cell-Based Therapy for Diabetes. *Expert Opinion Biol Ther*, 2015;15(9):1321-36

Najjar M, Manzoli V, Villa C, Martino MM, Molano RD, Torrente Y, Pileggi A, Inverardi L, Ricordi C, Hubbell JA, Tomei AA. Fibrin Gels Engineered with Pro-Angiogenic Growth Factors Promote Engraftment of Pancreatic Islets in Extrahepatic Sites in Mice. *Biotechnol Bioeng.* 2015 Sep;112(9):1916-26

Villa C., Martello F., Erratico S., Tocchio A., Belicchi M., Lenardi C., Torrente Y. P(NIPAAm-CO HEMA) THERMORESPONSIVE HYDROGELS: AN ALTERNATIVE APPROACH FOR MUSCLE CELL SHEET ENGINEERING", *Journal Of Tissue Engineering And Regenerative Medicine J Tissue Eng Regen Med.* 2014 May 5

Farini A, Villa C, Belicchi M, Meregalli M, Torrente Y. MICRO-CT TECHNIQUE FOR THREE-DIMENSIONAL VISUALIZATION OF HUMAN STEM CELLS. *Methods Mol Biol.* 2013;1052:143-52

Giuliani A, Moroncini F, Mazzoni S, Belicchi ML, Villa C, Erratico S, Colombo E, Calcaterra F, Brambilla L, Torrente Y, Albertini G, Bella SD. POLYGLYCOLIC ACID-POLYLACTIC ACID SCAFFOLD RESPONSE TO DIFFERENT PROGENITOR CELL IN VITRO CULTURES: A DEMONSTRATIVE AND COMPARATIVE X-RAY SYNCHROTRON RADIATION PHASE-CONTRAST MICROTOMOGRAPHY STUDY. *Tissue Eng Part C Methods.* 2013 Sep 5

Farini A, Villa C, Manescu A, Fiori F, Giuliani A, Razini P, Sitzia C, Del Fraro G, Belicchi M, Meregalli M, Rustichelli F, Torrente Y. NOVEL INSIGHT INTO STEM CELL TRAFFICKING IN DYSTROPHIC MUSCLES. *Int J Nanomedicine.* 2012;7:3059-67. 2012 Jun 20.

Villa, C. Et Al. STEM CELL TRACKING BY NANOTECHNOLOGIES. *Int J Mol Sci* 2010 Mar 12, 11(3) 1070-81

Belicchi, M., Erratico, S., Razini, P., Meregalli, M., Cattaneo, A., Jacchetti, E., Farini, A., Villa, C., Bresolin, N., Porretti, L., Lenardi, C., Milani, P., Torrente, Y. EX VIVO EXPANSION OF HUMAN CIRCULATING MYOGENIC



PROGENITORS ON CLUSTER-ASSEMBLED NANOSTRUCTURED TiO₂. Biomaterials, 2010 Jul; 31(20): 5385-96

Fiori F., Farini A., Giuliani A., Manescu A., Villa C., Torrentey. SYNCHROTRON RADIATION MICROTOMOGRAPHY FOR THE EX-VIVO AND IN VIVO EVALUATION OF NANOPARTICLES LABELED STEM CELL HOMING IN MUSCULAR TISSUE. NSTI- Nanotech 2010 Vol. 3

Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del DPR n. 445/2000.

Il presente curriculum, non contiene dati sensibili e dati giudiziari di cui all'art. 4, comma 1, lettere d) ed e) del D.Lgs. 30.6.2003 n. 196.

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