

## TANZI MARIA CRISTINA

Full Professor of Industrial Bioengineering (ING-IND/34) at the Department of Chemistry, Materials and Chemical Engineering 'G. Natta', Politecnico di Milano, School of Industrial and Information Engineering.

Retired starting March, 1st, 2014

### Education, Career, & Awards

CURRICULUM VITAE: Maria Cristina Tanzi had her Master Degree in Chemistry and Pharmaceutics, Milano University, in 1975 (with honors). From 1980 to 1989, she was Assistant Professor of Applied Chemistry at the Industrial Chemistry Department and from 1990 to 1998 at the Bioengineering Department, Politecnico di Milano,. From 1999 to 2007 she was Associate Professor of Chemical Bioengineering, from 2008 to 2012 she was Full Professor at the Bioengineering Department, and starting 2013 (until March 1<sup>st</sup>, 2014) at the Chemistry, Materials and Chemical Engineering Department of Politecnico di Milano.

TEACHING ACTIVITY: “Biomaterials” and “Tissue Engineering and Biomimetics” at the Master of Biomedical Engineering, and “Chemical Bioengineering” at the Bachelor Degree.

She was Director of the Laboratory of Biomaterials and co-Director of the BioCell Lab, Laboratory of Biocompatibility and Cell Culture at Politecnico di Milano.

In May 2008 she was nominated member of The International College of Fellows of Biomaterials Science and Engineering (ICFBSE)

MAIN RESEARCH INTERESTS: characterization and properties of polymeric materials, with special reference to biomaterials: elastomers and hemocompatible polymers for cardio-vascular applications (in particular polyurethanes); hydrogels for tissue engineering; natural and synthetic polymeric scaffolds for tissue engineering and regenerative medicine; polymer matrices for biomimetic composites (bone substitutes); biomaterials surface modification to improve cytocompatibility and antibacterial activity

PUBLICATIONS: more than 250 scientific papers, comprising 82 papers on ISI Journals. She is author of 12 Italian Patents and 9 International Patents on monomers and polymers for environmental, pharmaceutical and biomedical application

### LIST of 10 MOST RECENT SELECTED PUBLICATIONS:

1. Tanzi, M.C., Bioactive technologies for hemocompatibility, (2005) *Expert Review of Medical Devices*, 2 (4), pp. 473-492.
2. De Nardo, L., Farè, S., Di Matteo, V., Cipolla, E., Saino, E., Visai, L., Speziale, P., Tanzi, M.C., New heparinizable modified poly(carbonate urethane) surfaces diminishing bacterial colonization (2007) *J Mater Sci Mater Med*, 18 (11), pp. 2109-2115.
3. Tanzi MC, Farè S. Adipose tissue engineering: state of the art, recent advantages and innovative approaches. *Expert Review of Medical Devices* 2009; 6(5):533-551
4. Bozzini S, Petrini P, Tanzi MC, Zürcher S, Tosatti S. Poly(ethylene glycol) and hydroxy functionalized alkane phosphate mixed self-assembled monolayers to control nonspecific adsorption of proteins on titanium oxide surfaces. *Langmuir* 2010; 26(9):6529-6534.

5. Munarin F, Petrini P, Farè S, Tanzi MC. Structural properties of polysaccharide-based microcapsules for soft tissue regeneration. *J Mater Sci Mater Med* 2010; 21(1):365-375.
6. Bertoldi S, Farè S, Denegri M, Rossi D, Haugen HJ, Parolini O, Tanzi MC. Ability of polyurethane foams to support placenta-derived cell adhesion and osteogenic differentiation: preliminary results. *J Mater Sci Mater Med* 2010; 21(3):1005-1011.
7. Marelli B, Alessandrino A, Farè S, Freddi G, Mantovani D, Tanzi MC. Compliant electrospun silk fibroin tubes for small vessel bypass grafting. *Acta Biomaterialia* 2010; 6(10):4019-4026.
8. Marelli B, Achilli M, Alessandrino A, Freddi G, Tanzi MC, Farè S, Mantovani D. Collagen-reinforced electrospun silk fibroin tubular construct as small calibre vascular graft. *Macromol Biosci.* 2012; 12(11):1566-74
9. Munarin F, Petrini P, Bozzini S, Tanzi MC. New perspectives in cell delivery systems for tissue regeneration: natural-derived injectable hydrogels. *J Appl Biomater Funct Mater.* 2012; 10(2): e67-81.
10. F. Munarin, P. Petrini, M. C. Tanzi, M. A. Barbosa, P. L. Granja . Biofunctional chemically modified pectin for cell delivery. *Soft Matter*, 2012, vol. 8, p. 4731-4739

**Il presente Curriculum non contiene dati sensibili ai sensi del D.Lgs n. 196/2003**