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Human mesenchymal stromal cells : biological characterization and clinical application

Bernardo, M.E.

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Curriculum Vitae

Maria Ester Bernardo was born in Voghera (Pavia), Italy on September 14, 1975. In 1994 she took her high-school diploma at Liceo Classico “U. Foscolo” in Pavia. In July 2000 she took her Medical Degree in Medicine and Surgery, University of Pavia with a thesis entitled “Immunological Reconstitution after placental stem cell transplantation” (*cum laude*). In April 2001 she was licensed to practice medicine and surgery.

From June 2004 to June 2005 she served an internship at the Department of Haematology, Leiden University Medical Centre (head Prof. Dr. R. Willemze), under the supervision of Prof. Dr. W.E. Fibbe, focusing on research projects in hematopoietic stem cell transplantation utilizing mesenchymal stromal cells as therapeutic support.

In October 2005 she specialized in Pediatrics, University of Pavia, with a thesis entitled “Study of the chondrogenic potential of mesenchymal stem cells isolated from different tissue sources” (*cum laude*). From November 2005 to March 2007 she served as a fellow at the Department of Paediatric Oncohematology, Foundation IRCCS Policlinico San Matteo, Pavia. From April 2007 to present she is a Staff Paediatrician, specialized in Paediatric Oncohaematology, Department of Paediatric Oncohematology, Foundation IRCCS Policlinico San Matteo, Pavia.

Maria Ester Bernardo is a member of the Italian Association of Paediatric Haematology and Oncology (AIEOP) and of the American Society of Haematology (ASH). She is a member of the *Editorial Review Board* of the journal *Bone Marrow Transplantation*.

List of publications

Bernardo ME, Locatelli F, Fibbe WE. Mesenchymal stromal cells: a novel treatment modality for tissue repair. *Ann N Y Acad Sci.* 2009;1176:101-117. Review.

Bernardo ME, Emons JAM, Nauta AJ, Roelofs H, Romeo S, Marchini A, Rappold GA, Vukicevic S, Karperien M, Locatelli F, Willemze R, Fibbe WE. Human mesenchymal stem cells derived from bone marrow display a better chondrogenic differentiation compared with other sources. *Connect Tissue Res.* 2007;48:132-140.

Bernardo ME, Avanzini MA, Perotti C, Cometa AM, Moretta A, Lenta E, Del Fante C, Novara F, de Silvestri A, Zuffardi O, Maccario R, Locatelli F. Optimization of *in vitro* expansion of human multipotent mesenchymal stromal cells for cell-therapy approaches: further insights in the search for a fetal calf serum substitute. *J Cell Physiol.* 2007; 211:121-130.

Bernardo ME, Zaffaroni N, Novara F, Cometa AM, Avanzini MA, Moretta A, Montagna D, Maccario R, Villa R, Daidone MG, Zuffardi O, Locatelli F. Human bone marrow-derived mesenchymal stem cells do not undergo transformation after long-term *in vitro* culture and do not exhibit telomere maintenance mechanisms. *Cancer Res.* 2007;67:9142-9149.

Ball LM*, **Bernardo ME***, Roelofs H, Lankester A, Cometa A, Egeler RM, Locatelli F, Fibbe WE. Co-transplantation of ex-vivo expanded mesenchymal stem cells accelerates lymphocyte recovery and may reduce the risk of graft failure in haploidentical hematopoietic stem cell transplantation. *Blood.* 2007;110:2764-2767.

Le Blanc K, Frassoni F, Ball L, Locatelli F, Roelofs H, Lewis I, Lanino E, Sundberg B, **Bernardo ME**, Remberger M, Dini G, Egeler RM, Bacigalupo A, Fibbe WE, Ringdén O. Mesenchymal stem cells for treatment of steroid-resistant, severe, acute graft-versus-host disease: a phase II study. *Lancet.* 2008;371:1579-1586.

Bernardo ME*, Avanzini MA*, Ciccocioppo R, Perotti C, Cometa AM, Moretta A, Marconi M, Valli M, Novara F, Zuffardi O, Maccario R, Corazza GR, Locatelli F. Phenotypical/functional characterization of *in vitro* expanded mesenchymal stromal cells from Crohn's disease patients. *Cytotherapy.* 2009;11:825-836.

Avanzini MA*, **Bernardo ME***, Cometa AM, Perotti C, Zaffaroni N, Novara F, Visai L, Moretta A, Del Fante C, Ball LM, Fibbe WE, Maccario R, Locatelli F. Generation of mesenchymal stromal cells in the presence of platelet lysate: a phenotypical and functional comparison between umbilical cord blood- and bone marrow-derived progenitors. *Haematologica*. 2009;94:1649-1660. Epub 2009 Sep. 22.

* These authors contributed equally to the work.

Other publications

Pozzi S, Lisini D, Podestà M, **Bernardo ME**, Sessarego N, Piaggio G, Cometa A, Giorgiani G, Mina T, Buldini B, Maccario R, Frassoni F, Locatelli F. Donor multipotent mesenchymal stromal cells may engraft in pediatric patients given either cord blood or bone marrow transplantation. *Exp Hematol*. 2006;34:934-942.

Ball LM, **Bernardo ME**, Locatelli F, Egeler RM. Potential role of mesenchymal stromal cells in pediatric hematopoietic SCT. *Bone Marrow Transplant*. 2008;42:S60-S66.

Bernardo ME*, Ball LM*, Cometa AM, Roelofs H, Zecca M, Avanzini MA, Bertaina A, Vinti L, Lankester A, Maccario R, Ringden O, Le Blanc K, Egeler RM, Fibbe W, Locatelli F. Co-infusion of ex vivo expanded, parental, mesenchymal stem cells prevents life-threatening acute GvHD, but does not reduce the risk of graft failure in pediatric patients given allogeneic umbilical cord blood transplantation. *Bone Marrow Transplant*, in press.

Ball LM, **Bernardo ME**, Roelofs H, Zwaginga JJ, Locatelli F, Egeler RM, Fibbe WE. In children undergoing transplantation for non malignant disease, previous exposure to parental mesenchymal stromal cell infusions does not induce rejection of subsequent haploidentical hematopoietic stem cells. *Submitted*.

