2005 Annual Fellowship Report in grant of Sofia Luce Rebuffat

I am glad to report you my scientific activities developed during 2004 regard the research on "The development of Immunotherapeutic Strategie to Treat Haematological and Neoplastic Diseases on the Basis of Optimised Allogenic Stem Cell Transplantation. This project has been coordinated by Doctors Daniela Montagna, Rita Maccario and Franco Locatelli at Immunology of Transplantation Laboratory of Pediatric Oncohematology Unit, IRCCS Policlinico San Matteo from Pavia, Italy, with a grant in memory of Sofia Luce Rebuffat.

During this period I dedicated my efforts to develop new strategies to generate anti-leukeima cytotoxic T-lymphocytes (CTL) and improve the anti-leukemia immune response after bone marrow transplantation

I have been working in in the following researches concerning immunotherapy approaches for childhood leukemias:

"*Ex-vivo Generation of Anti-Leukaemia CTL Lines: IL-15 Enhances the Expansion of CTLs and Increases the Number of T Central Memory Cells*" preseted at 31°Annual Meeting of European Bone Marrow Transplantation, Pragha, 20-23 march 2005.

"*Ex-vivo Generation of Anti-Leukaemia CTL Lines: IL-15 Enhances the Expansion of CTLs and Increases the Number of T Central Memory Cells*" presented 10° Congress of the European Hematology Association, Sthocolm 2-5 june 2005.

"*Interaction of human mesenchymal stem cells with cells involved in alloantigen-specific immune response favors the differentiation of CD4+ T-cell subsets expressing a regulatory/suppressive phenotype*". Maccario R, Podesta M, Moretta A, Cometa A, Comoli P,

Montagna D, Daudt L, Ibatici A, Piaggio G, Pozzi S, Frassoni F, Locatelli F. Haematologica. 2005 Apr;90(4):516-25,

"*Emergence of anti-tumor cytolytic T cells is associated with maintenance of hematological remission in children with acute myeloid leukemia"* paper accepted for publication after autors review at Blood, 2006.

"*Emergence of naturally elicited anti-leukaemia CTLs predicts favourable outcome in children with acute myeloid leukaemia"* to be present at 32°Annual Meeting of European Bone Marrow Transplantation, Hamburg, 19-22 march 2006.

"*Role of common gamma-chain cytokines in the modulation of proliferating capacity and on distribution of T memory and effector cells of ex vivo generated human donor-derived anti-leukaemia CTL lines*" to be present at 32°Annual Meeting of European Bone Marrow Transplantation, Hamburg, 19-22 march 2006.

"*Ex-vivo generation of anti-leukemia CTL lines: IL-15 enhances the expansion of CTLs and increases the number of T central memory cells*" paper waiting to be submmit to international scientific publication.

I am sure that all these activities have been very helpful to improve my professional skills and for the progress of cellular immunotherapy aim to address new strategies to cure a great number of pediatric patients suffering from oncohematological diseases.

In addition, I reaffirm my sincerely thanks for the great opportunity you gave me and I hope ongoing contributing to scientific researches on pediatric oncohematology ground here in Brazil to reiterate your incentive.

Porto Alegre - Brazil , 16 march 2005

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