

## **Serafina Di Giacomo, M.D., PhD**

### **CURRICULUM VITAE ET STUDIORUM**

**Title/Institution:** Extracorporeal Therapeutic Techniques Unit- Immunohematology and Transfusion Medicine – University “La Sapienza” of Rome, “Umberto I” Hospital.

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April 1990

University degree (mark: 110/110) in Medicine and Surgery at the Istituto di Terapia Medica Sistemica (Institute of Systematic Medical Therapy) (Head: Professor Giorgio Ricci) of the University “La Sapienza” of Rome, with an experimental dissertation on Food Science issues. Supervisor: Professor Michelangelo Cairella.

1991

Postgraduate School for Liver and Metabolic Diseases at the Istituto di Terapia Medica Sistemica (Institute of Systematic Medical Therapy) of the University “La Sapienza” of Rome. Training in the operational management of extracorporeal circulation methods, with special regard to selective therapeutic aphaeresis, at the Plasmapheresis Laboratory (Head: Prof. Claudia Stefanutti) of the Institute of Systematic Medical Therapy.

1993

Awarded a scholarship by DIDEKO (SORIN Biomedica S.p.A.), Mirandola, Italy for the development of an innovative method in semi-selective therapeutic plasmapheresis in severe hyperlipoproteinemias (LDL-aphaeresis) by double cascade filtration.

Temporary appointment at the emergency medical service at the National Health Board LT 2 (Cisterna di Latina, Latina, Italy).

1994

Medical-scientific consultant at HAEMOCLUB INTERNATIONAL s.r.l., Rome, Italy, for the development of extracorporeal circulation methods through a continuous flow blood cell separator, with both the centrifugation and the cascade filtration techniques.

Temporary appointment at the emergency medical service at the National Health Board LT 2 (Cisterna di Latina, Latina, Italy).

1995

Contract assignment with Università degli Studi di Roma “La Sapienza” for the provision of professional services concerning the use of: ULTRACENTRIFUGE CENTRIKON and other equipment. Rank: Contract technician, as per art.5 of Presidential Decree 26/10/1972, No.633. The assignment was carried out at the facilities of Clinical Biochemistry and Plasmapheresis of the Istituto di Terapia Medica Sistemica (Institute of Systematic Medical Therapy) (Head: Professor Giorgio Ricci), at the University Hospital “Policlinico Umberto I”, Rome.

1996

Postgraduate degree in “Liver and metabolic diseases”. Experimental dissertation: Treatment of refractory ascites by ascites aphaeresis. Supervisor: Professor Giorgio Ricci, Co-supervisor: Prof. Claudia Stefanutti.

In the same year, Dr. José Miguel Boquinas, Head of the Division of Internal Medicine and Nephrology of the Hospital of Santa Cruz, invited Doctor Di Giacomo to participate in the organization of a Centre for LDL-aphaeresis as a trainer for the personnel involved.

At the same time, upon invitation by Doctor Egidio Pedro, she carried out a study and collaboration stage at the Institute of Cardiology and the Department of Biochemistry of the University of Lisbon, on the issue of non-pharmacological intervention strategies in familial hypercholesterolemia.

1997/1998

Assistant, on a voluntary basis, at the Department of Plasmapheresis (Head: Prof. Claudia Stefanutti), belonging to the “Istituto di Terapia Medica Sistemica”. Refinement of the conventional (plasma-exchange), semi-selective and selective techniques of therapeutic plasmapheresis. Development of the ascites aphaeresis method. Attendance at the outpatient clinic of the “Centro per la Lotta alle Malattie Metaboliche e alla Arteriosclerosi” (Arteriosclerosis and Metabolic Diseases Centre) belonging to the “Istituto di Terapia Medica Sistemica” of the University of Rome “La Sapienza” and headed by Prof. Giorgio Ricci, section “Genetically determined hyperlipoproteinemias in adult and pediatric patients” under the charge of Prof. Claudia Stefanutti.

1998/1999

Doctor Serafina di Giacomo was the winner of the PhD competition in Experimental Medicine: Atherosclerosis, XIV Course. Administrative Address: Università degli Studi di Siena, Istituto di Anatomia ed Istologia Patologica (University of Siena, Institute of Pathologic Anatomy and Histology); (Head: Professor Alberto Auteri). She attended the associated university facility of Rome, where she carried out her scientific and health care activity at the Section and Outpatient Clinic of Plasmapheresis (in charge of Prof. Claudia Stefanutti).

In the course of her four-year PhD stage (1999-2002), Doctor Serafina Di Giacomo collaborated with Italy's National Health Institute (Istituto Superiore di Sanità), Metabolism and Pathological Biochemistry Laboratory (Professor Alfredo CANTAFORA, Doctor Roberta MASELLA) in the design and execution of a number of tests for the assessment of acute and long term effects of the selective techniques of therapeutic plasmapheresis (LDL-apheresis) on the in vitro and in vivo oxidation susceptibility of low-density lipoproteins (LDL) and on endoerythrocyte reducing enzyme systems, as well as on the structural layout of membrane lipids in erythrocytes, on the pathophysiological model of heterozygous, double heterozygous and homozygous familial hypercholesterolemia (IF). She also participated in the development of a number of innovative techniques of selective therapeutic aphaeresis, such as H.E.L.P. (Heparin Mediated Extracorporeal LDL Precipitation) derived LDL aphaeresis, called Plasmatec-Futura, and the haemoperfusion (DALI) LDL aphaeresis through continuous anticoagulation with low-dose citrate (low-dose citrate AC DALI); she helped introduce these techniques into the Department of Plasmapheresis belonging to the Istituto di Terapia Medica Sistemica and later into the Dipartimento di Clinica e Terapia Medica Applicata (Department of Clinical Medicine and Applied Medical Therapy) and to perform the first treatments with these systems, as a preliminary step to the introduction of the new cell separators in the clinical activity. In particular, the research program concerning the “low dose AC DALI”, which was validated at a later stage in Munich and Rome, was carried out in the framework of an international collaboration with Professor Thomas Bosch from the Nephrology Department of the Grosshadern Hospital, Munich, University of Munich, Germany.

2002

PhD in Experimental Medicine, Atherosclerosis. Administrative Address: Università degli Studi di Siena, Istituto di Anatomia ed Istologia Patologica (Head: Professor Alberto Auteri)

2005

2nd level Master degree in Selective Therapeutic Aphaeresis, academic year 2003-2004

University of Rome “La Sapienza”, Department of Clinical Medicine and Applied Medical Therapy. Doctor Serafina Di Giacomo is the author and co-author of 68 papers, published on Italian and international reviews.