

BIOGRAPHICAL SKETCH

Name: Silvana Cassano	Position/Title: CNR-Researcher
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Education

Institution and Location	Degree	Year Conferred	Field of Study
Istituto Tecnico (High school) F. Caracciolo, Napoli, Italy	Baccalaureate	1973	
Biological Sciences Degree, "summa cum laude", University Federico II, Naples, Italy	Bachelor Degree	1979	Biochemistry
Post degree training at Istituto di Endocrinologia e Oncologia Sperimentale IEOS Naples, Italy	registration as biologists	1980	
Research fellow at Istituto di Endocrinologia e Oncologia Sperimentale IEOS Naples, Italy		1982	Cellular and Molecular Biology

Research and Professional Experience**Positions and Employment**

- 1979 Graduated at the University of Naples "Federico II", with a degree in Biological Sciences "summa cum laude". She discussed her thesis in Biochemistry. Supervisor Prof. Pietro Volpe.
- 1982 to 90 CNR fellow, at Istituto di Endocrinologia e Oncologia Sperimentale of Naples. Her activity was focused on the generation of monoclonal antibody against rat thyroglobulin and surface antigens of different tumor cells. Supervisor Prof. G.Rossi. Then she studied the relationship among differentiation, transformation and urokinase-type plasminogen activator (uPA/uPAR) in normal and transformed rat thyroid cells.
- 1990 to 2006 CNR- Technologist at the Istituto di Endocrinologia e Oncologia Sperimentale Naples. In 2006 CNR researcher in the same institute, working in a research group, directed by Prof. VE Avvedimento. Her activity was focused on molecular mechanism involved in the cAMP-dependent signal transduction pathways. Then she studied the survival, differentiation and proliferation of PC12 cells induced by Ki and Ha Ras isoforms until 2009
- 2009- present She is working in the Immunology laboratory directed by Prof. G. Matarese, her research project regards the study of autophagy in immune cell system.

Research Experience

- 1980-2009 In the past years she produced monoclonal antibody against rat thyroglobulin to investigate on its repeating antigenic regions, she also produced monoclonal antibody against surface antigens of different rat thyroid cells. Subsequently she studied plasminogen activator urokinase type uPA and its receptor uPAR. She demonstrated that there was a relationship among differentiation, transformation and uPA/uPAR production in rat thyroid cells. Then, she studied molecular mechanism involved in the cAMP-dependent signal transduction pathways in PC12 cells and mutant A126. She demonstrated that membrane localization of cAMP-dependent protein kinase amplifies cAMP signalling to the nucleus in PC12 cells and that membrane-bound cAMP-dependent protein kinase controls cAMP-induced differentiation in PC12 cells. Then her activity concerned survival, differentiation and proliferation of PC12 cells induced by Ki and Ha Ras isoforms. She focused her attention on different effects of Ki and Ha-Ras genes on endogenous reactive oxygen species (ROS). She analyzed the effects of NGF and Ki-Ras on the mitochondrial superoxide dismutase MnSOD, during PC12 differentiation.
- 2009-present Currently, in the laboratory directed by Prof. G. Matarese her research project regards the study of molecular mechanisms that modulate the effects of the adipocytokine " leptin " on cellular autophagy in human effector CD4 T cells. She has demonstrated that in vitro treatment with recombinant human leptin determine an inhibition of autophagy during T cell receptor (TCR) stimulation, and this phenomenon was dose- and time dependent. The events were secondary to the activation of the mammalian-target of rapamycin(mTOR)-pathway induced by leptin, as testified by its reversion induced by mTOR inhibition with rapamycin.