Dr. Anna maria Spina Curriculum Vitae Scientific career:

1977 - Degree in Biological Science at the University of Naples

1979 – 1982 - PHD in Pharmacological Research: "Mario Negri Institute Milan Italy".

1983 - 1999 - Researcher in Bioche mistry: 1st Faculty of Medicine and Surgery of the University of Naples. 1988 – 1990 - Roswell -Park-Institute "University of New York – Buffalo", NY

2001 - Associated Professor in Biochemistry 1st Faculty of Medicine and Surgery University of Naples (E05 Biochemistry)

2003- Now - Associated Professor at the same department. Scientific activities:

Dr. A. Spina has conducted her research activities at the Department of Biochemistry and Biophysics of the Medicine Faculty - University of Naples -, at the Institute for Pharmacological Research - M. Negri Milan Italy - and at the Department of Molecular Biology - Roswell Park - University of NY - (USA).

The main research topics she has addressed can be summarized in: - Transduction of cellular signals through amplification systems. - Interrelations between the systems of signal amplification and neoplastic transformation. - Anoxia, expression and overexpression of proteins involved in the physiological role of fibroblasts in wound healing. - Identification of the molecular mechanisms inherent to the transmission and amplification of transmission signals in cell lines transformed by ras virus oncogenes. - Studies of molecular mechanisms of retinoids in the process of reversion / remission in ras virus transformed cells. - Studies of phosphorylation in high molecular weight proteins, belonging to the gluteinine family purified from wheat endosperm. - In recent years she has been studying the effects of biomolecules on the control of tumor cell growth: • The effects of inorganic phosphate on the human osteosarcoma cells growth. • Leptin and cAMP elevating agents on the control of cell growth in breast cancer.