UNIVERSITÀ DEGLI STUDI
DI GENOVA

DIMES

DIPARTIMENTO DI MEDICINA SPERIMENTALE

Title	**SSD:**	**Project Manager:**
1) Crosstalk between exosome biogenesis and autophagy as mechanisms for cancer dissemination and resistance to targeted therapies in mammary carcinomas ERBB2 + 2) Ultrastructural aspects of autophagy in cancer and in neurodegenerative pathologies 3) Development of imaging techniques and advanced electron microscopy	BIO/16 Anatomia Umana	Prof.ssa Katia Cortese
Financial support	*FRA 2016* *FFABR 2017*	
Summary	Up to 20-30% of breast cancers (BCa) overexpress the constitutively active tyrosine kinase ErbB2 (HER2). ErbB2 + BCa show a high index of recurrence and frequency of metastasis, a poor prognosis and resistance to chemo- and hormone-therapy. The translational value of the project is made evident by the incidence of BCa in the population. In fact, BCa is the leading cause of death in women aged 35-45, and the leading cause of cancer death after 55 years of age. In particular, this project aims at the characterization of the crosstalk between the autophagy process and the release of exosomes, two biological mechanisms involved in tumor dissemination and resistance to targeted therapies in use today. The project has the potential to identify new potential therapeutic molecular targets and new strategies for the treatment of BCa and to identify molecular targets for a more accurate selection of patients to be subjected to specific therapies.	