

# 19<sup>th</sup> Euro Congress on Cancer Science and Therapy & 25<sup>th</sup> Cancer Nursing & Nurse Practitioners Conference

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## Communication network mediated by exosomes as a new therapeutic target for pancreatic cancer

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Cancer treatment experienced significant advance over the last years. This has been mainly due to therapy targeting of key biological mechanisms such as cell survival, proliferation, apoptosis, angiogenesis and, more recently, tumor immune response. Cell communication, however, despite playing a fundamental role in all steps of tumor progression, up to metastasis and therapy resistance, is still off the cancer therapy landscape. Hence, the major challenge of our work is to bring cell communication into the realm of cancer therapy. Exosomes, extracellular vesicles secreted by all cells, are key mediators of cell-to-cell communication in cancer. We have identified a network of communication mediated by cancer exosomes *in vivo*, through the identification of their recipient cells. Additionally we show that targeting the most frequent pancreatic cancer exosomes communication route can be an effective target for pancreatic cancer therapy. Our strategy includes unique genetically engineered mouse models (GEMMs), which allow for the first time to trace exosomes *in vivo* and model therapeutic targeting of exosomes biogenesis. Our work demonstrates the *in vivo* significance of pancreatic cancer exosomes and opens a new avenue for groundbreaking discoveries in the treatment of pancreatic cancer and, eventually, other cancers.

### Biography

Sonia A Melo has completed her PhD from the Faculty of Medicine of University of Porto and Post-doctoral studies from Harvard Medical School and MD Anderson Cancer Center. She is a Principal Investigator at I3S - Institute of Research and Innovation of the University of Porto and Institute of Molecular Pathology and Immunology of Porto University. Her career is fully committed to cancer research and has published more than 20 papers in reputed journals.

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