



Consiglio Nazionale
delle Ricerche



ISTITUTO PER L'ENDOCRINOLOGIA
E L'ONCOLOGIA SPERIMENTALE
"G. SALVATORE"
2nd UNIT

Friday Seminar
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Targeting the TGF β signaling in cancer progression

Host: Anna Chiara DeLuca (annachiara.deluca@cnr.it)

Conference Room, CNR, P. Castellino Campus

Abstract

Transforming Growth Factor-beta (TGF β) signaling plays a critical role in the progression of pancreatic and colorectal cancer, making it an attractive target for therapeutic intervention. Aberrant activation of TGF β signaling is implicated in the initiation, progression, and metastasis of these aggressive malignancies. TGF β promotes tumor cell proliferation, angiogenesis, epithelial-to-mesenchymal transition (EMT), and immune evasion, facilitating tumor growth and metastatic spread.

Targeted inhibition of TGF β signaling has demonstrated promising results in preclinical studies, offering potential to enhance the effectiveness of conventional therapies and stimulate anti-tumor immune responses in both types of cancer. Various therapeutic approaches, such as small molecule inhibitors, monoclonal antibodies, and gene therapies, are being explored to target TGF β signaling. Combination strategies that target multiple aspects of the TGF β pathway, in addition to combining therapies with standard treatments, provide a comprehensive approach to address the intricate mechanisms underlying pancreatic and colorectal cancer progression.

Biosketch:

Dr. Enza Lonardo obtained her Bachelor in 2003 in Plant Biotechnology at University of Naples Federico II under the supervision of Dr. Roberto Defez at IGB. In 2008, she obtained her PhD at University of Naples Federico II under the supervision of Dr. Gabriella Minchiotti at IGB working on Cripto signaling in embryonic stem cells. In 2009 she moved to Madrid where she started her first postdoc in Christopher Heeschen lab at CNIO where she was working on TGF-beta signalling in pancreatic cancer. In 2012 she moved to Barcelona at IRB as Senior Postdoc in Eduard Batlle lab working on TGF-beta signaling in colorectal cancer. Since February 2017 I joined the IGB as Group Leader to study the tumor-stroma crosstalk mediated by TGF-beta in gastrointestinal cancer (pancreatic and colorectal).