Abstract

As death rates from cancer decline, scientists are encouraged by recent advances in prevention, early diagnosis, and therapy. Efforts are being made towards the generation of “smart” anti-cancer drugs that will target specific molecules depending on the molecular phenotyping of the patient’s tumor. TNF-related apoptosis-inducing ligand (TRAIL) is currently a promising anti-tumor agent with proven activity on several cell and animal cancer models. A unique feature of TRAIL is its specificity towards malignant cells, which is what this project is seeking to utilize in identifying components of colon tumors, which confer sensitivity or resistance to cell death induced by TRAIL.

Mission

The ONCODEATH Project is concerned with a unique approach to cancer treatment: the analysis of defective apoptotic pathways in colon tumour cells in a oncogene dependent manner in order to exploit
them for novel treatment protocols based on TRAIL as a "monotherapy" or in combination with novel pathway specific inhibitors, like PI3K, Rho and aurora kinase pathways. In combination therapies the two drugs can be used in low concentrations, thus minimizing side-effects. Moreover, drugs targeting signaling pathways allow or amplify the activity of TRAIL by targeting resistance mechanisms and pathways in particular tumours. This treatment has been already been successful in both in vitro and in vivo applications. The ultimate goal is to shift the therapeutic emphasis to tumour specific drugs, with a consequence for low hospitalization time, costs, and high efficiency.

Structure & Governance

European Commission Sixth Framework Programme (FP6)

Financing

European Commission Sixth Framework Programme (FP6)

Impact/Accomplishment

For a list of accomplishments, click here

Links/Social Media Feed


Points of Contact
Laboratory of Signal Mediated Gene Expression  
Institute of Biological Research and Biotechnology (I.B.R.B.)  
National Hellenic Research Foundation (N.H.R.F.)  
48 Vas. Constantinou Ave., 116 35 Athens, Greece  
Tel: +302107273753, +302107273745  
Fax: +302107273755  
e-mail: apint@eie.gr  

Sponsors & Partners

Laboratory of Signal Mediated Gene Expression, Institute of Biological Research and Biotechnology  
Laboratory of Cell Signaling and Apoptosis, Institute of Molecular Genetics  
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Cancer Research UK Centre for Cancer Therapeutics, The Institute of Cancer Research  
Breakthrough Breast Cancer Research Centre, Cancer Research UK, Institute of Cancer Research  
Dept. of Cell biology, University of Geneva  
Instituto de Investigaciones Biomedicas, C/ Arturo Duperier 4, 28029 Madrid  
Equipe de Morphogenese et Signalisation cellulaires, UMR 144 CNRS/Institut Curie  
Molecular Biology Department, DTCA HYGEIA Hospital

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