



# PIRAMID

PROTEIN INTERACTIONS  
IN RATIONAL APPROACHES  
FOR MEDICINAL  
INNOVATIVE DRUGS

## Protein-Protein Interaction BCL-xL



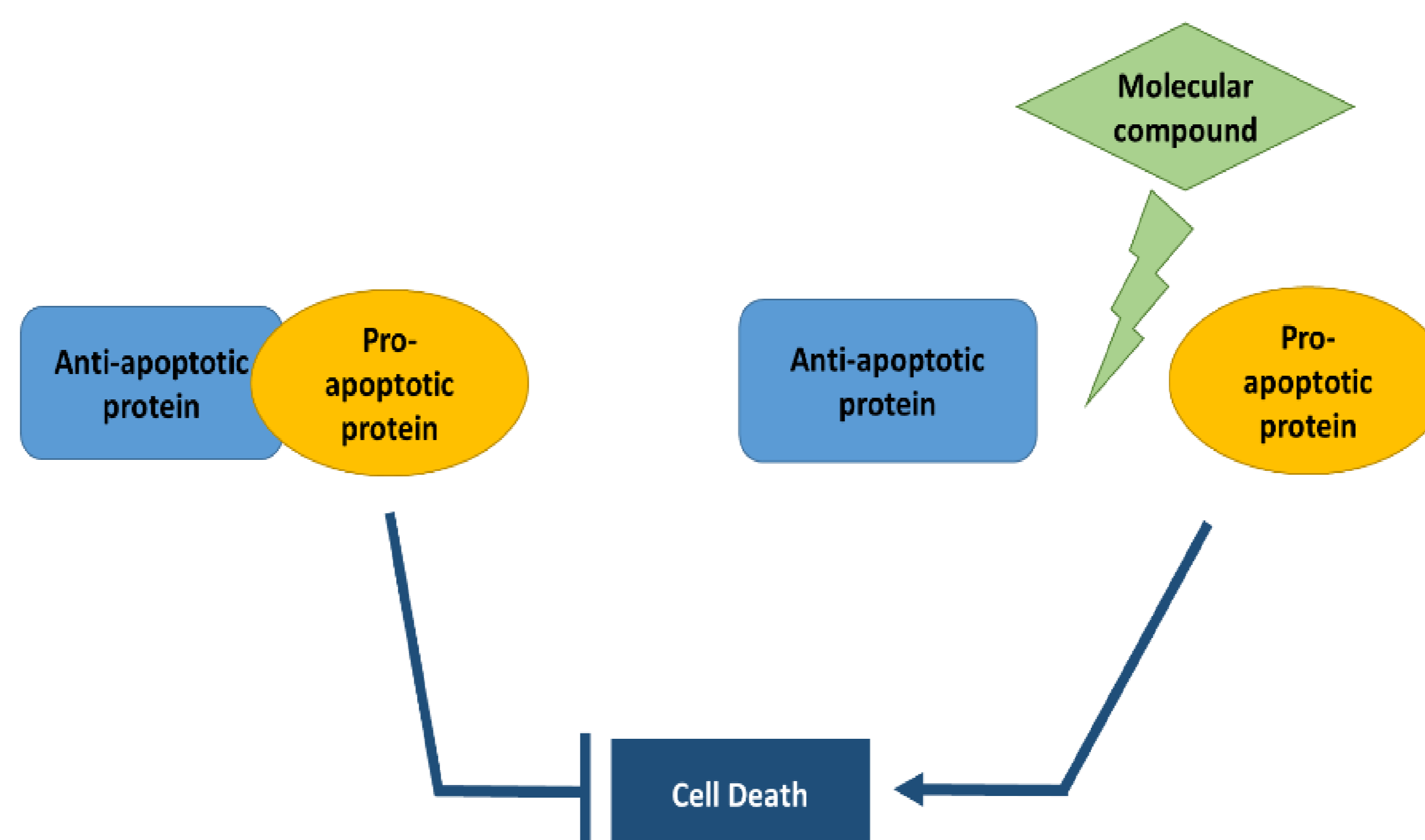
### Context :

The ability to overcome stresses generated during **carcinogenesis** is one of the main traits of cancer cells. As a consequence, **tumor cells are often resistant to conventional chemotherapies.**

### BCL-xL

Members of Bcl2 family are the key players of this process, which involves **hementanti-apoptotic proteins** (Bcl2, Bcl-xL, Mcl1....) and **pro-apoptotic proteins** (Bax, Puma, Bim....).

The balance between pro-death and pro-life proteins and the interactions they engage together will define the fate of the cell (figure 1).



### Goals and ambitions :

The purpose of this project is to **design molecules able to break efficiently this interaction to trigger a full-blown apoptotic process.** As a final goal, this compound should give a significant clinical benefit when combined with conventional chemotherapies.

### Resources :

Laboratory **UFIP**, Laboratory **CEISAM** and Laboratory **CRCINA**, Laboratory **IMMM**.



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