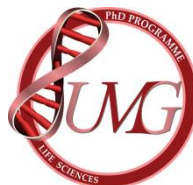




UNIVERSITÀ DEGLI STUDI
MAGNA GRÆCIA DI CATANZARO



DOTTORATO DI RICERCHE
IN SCIENZE DELLA VITA

UNIVERSITÀ DEGLI STUDI *MAGNA GRÆCIA* DI CATANZARO
- DIPARTIMENTO DI SCIENZE DELLA SALUTE -
- DOTTORATO DI RICERCHE IN SCIENZE DELLA VITA -
- SCUOLA DI SPECIALIZZAZIONE IN FARMACIA OSPEDALIERA -
SEMINARIO CORSO CV_S_027

**HOW A PHARMACEUTICAL COMPANY SEES BASIC SCIENCE
PROJECTS: THE CASE OF QUINONE OXIDOREDUCTASE 2 (QR2)**



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Quinone reductase 2 (QR2 or NQO2) is a strange protein first discovered in the sixties, and then cloned in the nineties. It transfers electron from N-ribosyldihydronicotinamide onto quinones such as ménadione or 1,4-dihroxy-naphthoquinones. The history and the research on this particular enzyme is a nice example of what the Industry can make of serendipity and imagination. I'll describe in some details the various aspects of the research on QR2, including, its initial discovery, its re-discovery as MT3 melatonin binding site, the research for inhibitors, the use of inhibitors, its role in the process of ageing, the use of QR2 KO mice, the possibility that QR2 has a central role in dopamine metabolism, the possibility that QR2 is involved in the worsening of Alzheimer disease, the relationship between QR2 and chloroquine (malaria??), etc...

The talk should also raise some questions such as: the in vivo use of inhibitors, the "specificity" of inhibitors, the notion of knock-out mice and the difficulty of having the right controls; as well as some thinking on Pharm Industry Research.

CAMPUS UMG DI CATANZARO – EDIFICIO DELLE BIOSCIENZE
AULA G3 – CORPO G LIVELLO 0 – 22 FEBBRAIO 2017, ORE 14

HOST: STEFANO ALCARO alcaro@unicz.it

SEMINARIO APERTO A DOTTORANDI, SPECIALIZZANDI E STUDENTI CdL IN FARMACIA, BIOTECNOLOGIE E BIOTECNOLOGIE APPLICATE ALLA NUTRIZIONE