

network

enterprise europe

STEFANO ALCARO

TARGETING THE G-QUADRUPLEX FOLD OF NUCLEIC ACIDS BY
DIFFERENT COMPUTATIONAL DRUG DESIGN APPROACHES

23 JUNE 2011 - 11:00

SARDEGNA RICERCHE
Loc. Piscinamanna – Edificio 2 – Pula

Moderator: Prof. Elias Maccioni, UniCa

Stefano Alcaro

Associate Professor of Medicinal Chemistry - Head of the Computational Chemistry
Laboratory - University Magna Græcia of Catanzaro (Italy)

The G-quadruplex fold is an unusual DNA and/or RNA conformation adopted in physiological and pathological conditions. The hyper-elongation of the human repeated telomeric sequence folding into this conformation is related to the hyper-proliferation of neoplastic cells. Recently the rationale of blocking the elongation process has been proposed as new and selective mechanism to develop antitumor agents.

The conformational properties of the G-quadruplex target will be discussed as well as the opportunity to carry out rational design of novel antitumor agents based on the stabilization of this special fold. Details about new computational tools based on different approaches developed in our laboratory will be described with some our G-quadruplex case studies.

Information and registration available at www.sardegna ricerche.it