

Innovative Targets and Drug Design Strategies in Cancer Therapy

PROJECT "DRUG DESIGN, SYNTHESIS AND BIOLOGICAL ACTIVITY OF NEW MOLECULES TARGETING MITOSIS IN ANTITUMOR THERAPY" (PRIN 2008 grant 200879X9N9)

In collaboration with PhD Schools
Dottorato in Scienze Farmaceutiche, in Genetica e Biologia Molecolare and in Scienze Pasteuriane

February 18, 2011

Aula Tatò, Dipartimento di Biologia e Biotecnologie, Via dei Sardi 70, Roma 00185

09:50-10:00 **Romano Silvestri** (Sapienza Università, Roma)

Opening remarks: Promising targets and current drug design strategies in cancer

Mitosis as a "druggable" target

10:00-10:20 **Patrizia Lavia** (IBPM-CNR, Roma)

Imaging the response to anti-mitotic drugs at the single cell-level: what should the ideal drug do?

10:20-10:40 **Antonio Coluccia** (Sapienza Università, Roma)

Computational studies of colchicine site compounds

10:40-11:00 **Gian Cesare Tron** (Università del Piemonte Orientale)

Opportunity with the Suzuki reaction: potent and easy to make rigid analogues of combretastatin A-4

11:00-11:30 Coffee break

Targeting global regulators of cellular processes

11:30-11:50 **Armando Gennazzani** (Università del Piemonte Orientale)

NAD biosynthesis as a target for cancer-therapy and inflammatory disorders

11:50-12:10 **Patrizia Filetici** (IBPM-CNR, Roma)

Tuning acetylated chromatin in cancer therapy

12:10-12:30 **Corrado Spadafora** (Istituto Superiore di Sanità, Roma)

Targeting LINE-1-encoded reverse transcriptase in cancer

12:30-12:50 **Giovanni Maga** (Istituto di Genetica, CNR-Pavia)

Targeting host-pathogen interactions in viral infections as a novel therapeutic strategy

12:50-14:00 Lunch break

Targeting protein modifications and interactions

14:00-14:20 **Silvia Soddu** (Istituto Regina Elena, Roma)

Different mechanisms of HIPK2 inactivation in cancer: two Achilles' heels

14:20-14:40 **Antonio Lavecchia** (Università di Napoli "Federico II")

Discovery of Cdc25 dual specificity phosphatase inhibitors by virtual ligand screening

14:40-15:00 **Nicola Micale** (Università di Messina)

Design and synthesis of ubiquitin-proteasome pathway inhibitors as antitumor agents

15:00-15:20 **Andrea Brancale** (Cardiff University, UK)

Development of an haptic-driven drug design tool

15:20-15:40 Discussion: perspectives and future directions

Organizing Committee

Romano Silvestri

Istituto Pasteur – Fondazione Cenci Bolognetti

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Students (FAR, CFT, ISF, TE) will have CFU credits