



## Italo Cirone

Date of birth: 16/12/1995

Nationality: Italian

Gender: Male

### CONTACT

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### ABOUT ME

PhD candidate in Medicinal Chemistry at University of Pisa

### WORK EXPERIENCE

**09/2014 – 27/10/2020** – Cagliari, Italy

#### Master Degree in Medicinal Chemistry

Univeristà degli studi di Cagliari

**15/11/2020 – 14/02/2021** – Cagliari, Italy

#### Research fellowship

Department of Life and Environmental Sciences,  
Università degli studi di Cagliari

Synthesis and characterization of small molecules with anti-tumor and anti-HIV activity

**25/02/2021 – 29/05/2021** – Galway, Ireland

#### Erasmus Traineeship

National University of Ireland (NUIG), School of Chemistry

Working on a research project entitled "Injectable Nanogels as Drug Delivery Systems for Cancer Drugs". Investigation of the formation of hyaluronic acid-based nanogels with acid- and redox-responsive crosslinkers. Exploring different synthetic strategies and applying various analytical techniques including NMR spectroscopy to characterise the nanogels.

**03/11/2021 – CURRENT** – Pisa, Italy

#### PhD candidate

University of Pisa, Department of Drug Science and Bioactive Substances

Synthesis and characterisation of novel anticancer compounds. *In vivo* testing on C.elegans models of neuroprotective compounds.

### EDUCATION AND TRAINING

#### Master Degree

Università degli studi di Cagliari

### LANGUAGE SKILLS

**MOTHER TONGUE(S):** Italiano

**OTHER LANGUAGE(S):**

Inglese

Listening  
C1

Reading  
C1

Spoken  
production  
C1

Spoken  
interaction  
C1

Writing  
C1

## DIGITAL SKILLS

### My Digital Skills

MestReNova / ChemDraw / SciFinder / Microsoft Office

## CONFERENCES AND SEMINARS

14/07/2022 – 16/07/2022 > – IQS, Barcelona

### MedChem2022 XI Paul Ehrlich Euro-PhD Network

Poster presentation titled "Discovery of a Potent 14-3-3 Modulator as an Anticancer Agent in Lymphoma"

04/11/2022 – 05/11/2022 > – Cagliari

### Next Generation Chemists

Oral communication titled "*C. ELEGANS*: At the crossroads between ceellular and murine models"

## PUBLICATIONS

### Exploring new scaffolds for the dual inhibition of hiv-1 rt polymerase and ribonuclease associated functions

<https://doi.org/10.3390/molecules26133821>

Current therapeutic protocols for the treatment of HIV infection consist of the combination of diverse anti-retroviral drugs in order to reduce the selection of resistant mutants and to allow for the use of lower doses of each single agent to reduce toxicity. However, avoiding drugs interactions and patient compliance are issues not fully accomplished so far. Pursuing on our investigation on potential anti HIV multi-target agents we have designed and synthesized a small library of biphenylhydrazo 4-arylthiazoles derivatives and evaluated to investigate the ability of the new derivatives to simultaneously inhibit both associated functions of HIV reverse transcriptase. All compounds were active towards the two functions, although at different concentrations. The substitution pattern on the biphenyl moiety appears relevant to determine the activity. In particular, compound 2-{3-[(2-{4-[4-(hydroxynitroso)phenyl]-1,3-thiazol-2-yl}hydrazin-1-ylidene) methyl]-4-methoxyphenyl} benzamide bromide (**EMAC2063**) was the most potent towards RNaseH ( $IC_{50} = 4.5$  mM)- and RDDP ( $IC_{50} = 8.0$  mM) HIV RT-associated functions