



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

DEPARTMENT OF PHARMACY AND BIOTECHNOLOGY

Job Position

Post-doc fellowship in Cancer Genome Instability

A 3-year Postdoc position is available, starting on March 1st, 2020, at the Department of Pharmacy and Biotechnology, University of Bologna, to carry out a project in the laboratory headed by prof Giovanni Capranico.

The project

G-quadruplex and R loops are non-canonical DNA secondary structures that can lead to DNA damage and genome instability with multiple consequences for cancer progression and treatment. We have recently determined that selective G4 binders stimulate micronuclei formation in human cancer cells via the accumulation of double-strand DNA breaks and increased levels of R-loops (De Magis et al., PNAS 2019). The postdoc will be responsible to establish the mechanisms of the immune response of cancer cells to agents interfering with non-canonical DNA structures and leading to genome instability. The postdoc will use genome mapping strategies (see Manzo et al., Genome Biol, 2018), super-resolution microscopy and other modern molecular technologies to define the cellular and molecular mechanisms of DNA damage formation and immune response in cancers. He/she will benefit from working within an interdisciplinary environment, interacting with bioinformaticians, cellular/molecular biologists, pharmacologists and clinicians to foster cross-contamination of ideas.

The candidate

We seek an outstanding, motivated and enthusiastic candidate with a pro-active attitude and analytical approach. The candidate should have a strong interest in the project and be willing to take challenges in cancer research. Given the University and lab framework, he/she should have good communication skills and capacity to work in a team.

Specific requirements:

- PhD in any area of biology or science fields
- Previous training and experience in molecular biology, genomics or related fields

Specific qualifications:

- Experience in NGS, genome mapping and molecular genetic techniques
- International experience will be considered a major plus

The University and Department

The University of Bologna is the oldest university in the Western world. Today, it is a large University with over 81,000 students, leader in Europe and famous for its beauty and integration with the city. A further 5,000 students are PhD candidates. The Department of Pharmacy and Biotechnologies (FaBiT) promotes research and teaching in chemical-pharmaceutical-



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technological, biomedical, biotechnological, biological and molecular biological areas. It has state-of-the-art research facilities in both chemistry and molecular biology fields.

The city

Bologna has always favoured a multi-disciplinary, cross-cultural approach; it invests in international, multicultural training, research and services. It offers an intense cultural and lively environment for young people of any cultural heritage. Bologna is a hub of international networks. Specific information can be found at the following sites:

<http://agenda.comune.bologna.it/cultura/> Cultural Agenda

<https://www.bolognawelcome.com> Welcome to Bologna

<http://www.flashgiovani.it> Young people

<http://www.cinetecadibologna.it/home> Cinema

<https://bit.ly/2LY7iDn> Music at Bologna

A more complete list of info sites, here: <https://bit.ly/34keYG7>

More information

Qualified and interested candidates can contact prof. Giovanni Capranico (giovanni.capranico@unibo.it) providing a CV, motivation letter describing background and qualifications relevant for the position and contact addresses of at least two referees.