



**One PhD position** (36 months) starting in Fall 2023 will be available at the Department of Chemistry of the University of Florence in the frame of the Marie Skłodowska-Curie European Doctorate Network (EDN) "Understanding the Role of Glycans in Human Norovirus Infection: a Key to Unlock New Therapies" (GlycoNoVi), funded by the European Commission (Grant agreement no: 101072717). The Doctorate Candidate who will be recruited for the above project will be enrolled at the Department of Chemistry, University of Florence in the International Doctorate School of Structural Biology, granting a PhD degree at the end of three years ([www.glyconovi.eu](http://www.glyconovi.eu)).

*Principal Investigator:* Prof. Cristina Nativi ([www.unifi.it](http://www.unifi.it))

***PhD Project Title: Design, Synthesis and Characterization of Human Milk Oligosaccharides analogues as NoV ligands***

*PhD Project Description:* Noroviruses (NoV), responsible for gastroenteritis worldwide, use glycans as attachment factors. Predominantly, human NoVs bind to histo-blood group antigens (HBGAs), but also to human milk oligosaccharides (HMO). The synthesis of HMOs to set up a library of rare / poorly studied HMOs and of HMOs analogues will be the main objective of the project. Enzymatic labile O-fucosyl linkages will be replaced with S- or C-linkages to produce a set of HMOs analogues with potential NoV inhibitory effect or with structure features necessary in biological investigations based on literature and in silico modelling.

*Planned secondments:*

1 secondment at ICENI (UK, start up) and  
1 secondment at CNRS (FR, academy)

*Relevant skills that will be considered:*

- Practical experience in analytical methods (NMR, MS, HPLC)
- Good level of English proficiency (understood, spoken and written)
- Team spirit and collaborative predisposition
- Desirable extra competences: experience in carbohydrate synthesis

*Eligibility and salary*

The position is open to candidates of any nationality, as long as they fulfill the requirements set for the DCs funded by Marie Skłodowska-Curie actions:

-) Candidates who have previously obtained a Ph.D. degree, or have more than 4 years of research activity from the date when they have obtained a University diploma giving access to doctoral studies, are not eligible

The salary of the DCs will be paid according to the Marie Skłodowska-Curie action rules. See: <https://marie-sklodowska-curie-actions.ec.europa.eu/calls/msca-postdoctoral-fellowships-2022>

*Applications*

Interested people, please contact Prof. Cristina Nativi ([cristina.nativi@unifi.it](mailto:cristina.nativi@unifi.it)) by April 01<sup>st</sup> 2023, including:

- Curriculum vitae
- Motivation letter (1 page)
- Two references letters

Information also available at: [euraxess.ec.europa.eu](http://euraxess.ec.europa.eu)