

## ***Curriculum vitae Prof. Maria Chiara Monti***

Prof. Maria Chiara Monti awarded the degree in Chemistry by the University of Naples “Federico II” with final marks of 110/110 *cum laude*. In 2002, she was enrolled in the Ph.D. in Pharmaceutical Sciences at the Department of Pharmaceutical Sciences, University of Salerno. In 2005/2006, she held two fellowships from the *European Commission Research Marie Curie* and from the *Federation of European Biochemical Societies* to carry out her research at the Biomolecular Mass Spectrometry Department of Utrecht University under the supervision of Prof. A. Heck.

From 2006 to 2015, she worked as researcher in Organic Chemistry and up to 2023, she was associate Prof. of Organic Chemistry at the Department of Pharmacy (University of Salerno).

Actually, she is full Prof. of Organic Chemistry at the Department of Pharmacy of the University of Naples, Federico II. Prof. Maria Chiara Monti has been trained both in classical protein biochemistry and in bio-molecular mass spectrometry. Her research is focalized on the investigation of different aspects of protein-ligand interaction and chemical proteomics. A multi-disciplinary approach has been optimized by Prof. Monti combining mass spectrometry with limited proteolysis, alpha screen, calorimetry, surface plasmon resonance, fluorescence analyses and molecular dynamics. Her research activity is confirmed by around 130 publications on international magazines.

Here some publications:

1. Morretta, E., Ruggiero, D., Belvedere, R., Petrella, A., Bruno, I., Terracciano, S., **Monti, M.C.\*** A multidisciplinary functional proteomics-aided strategy as a tool for the profiling of a novel cytotoxic thiadiazolopyrimidone. (2023) *Bioorganic Chemistry*, 138, art. no. 106620. DOI: 10.1016/j.bioorg.2023.106620
2. Morretta, E., Belvedere, R., Petrella, A., Spallarossa, A., Rapetti, F., Bruno, O., Brullo, C., **Monti, M.C.\*** Novel insights on the molecular mechanism of action of the anti-angiogenic pyrazolyl-urea GeGe-3 by functional proteomics (2021) *Bioorganic Chemistry*, 115, art. no. 105168. DOI: 10.1016/j.bioorg.2021.105168
3. Del Gaudio, F., Pollastro, F., Mozzicafreddo, M., Riccio, R., Minassi, A., **Monti, M.C.\*** Chemoproteomic fishing identifies arzanol as a positive modulator of brain glycogen phosphorylase (2018) *Chemical Communications*, 54 (91), pp. 12863-12866. DOI: 10.1039/c8cc07692h
4. Capolupo, A., Esposito, R., Zampella, A., Festa, C., Riccio, R., Casapullo, A., Tosco, A., **Monti, M.C.\*** Determination of Gymnemic Acid I as a Protein Biosynthesis Inhibitor Using Chemical Proteomics (2017) *Journal of Natural Products*, 80 (4), pp. 909-915. DOI: 10.1021/acs.jnatprod.6b00793
5. Capolupo, A., Tosco, A., Mozzicafreddo, M., Tringali, C., Cardullo, N., **Monti, M.C.\***, Casapullo, A. Proteasome as a New Target for Bio-Inspired Benzo[k,l]xanthene Lignans (2017) *Chemistry - A European Journal*, 23 (35), pp. 8371-8374. DOI: 10.1002/chem.201701095
6. Margarucci, L., **Monti, M.C\*.**, Tosco, A., Esposito, R., Zampella, A., Sepe, V., Mozzicafreddo, M., Riccio, R., Casapullo, A. Theonellasterone, a steroidal metabolite isolated from a Theonella sponge, protects peroxiredoxin-1 from oxidative stress reactions (2015) *Chemical Communications*, 51 (9), pp. 1591-1593. DOI: 10.1039/c4cc09205h
7. Cassiano, C., Margarucci, L., Esposito, R., Riccio, R., Tosco, A., Casapullo, A., **Monti, M.C.\*** In cell scalarial interactome profiling using a bio-orthogonal clickable probe (2014) *Chemical Communications*, 50 (45), pp. 6043-6045. DOI: 10.1039/c4cc00989d
8. Cassiano, C., Esposito, R., Tosco, A., Zampella, A., D’auria, M.V., Riccio, R., Casapullo, A., **Monti, M.C.\*** Heteronemin, a marine sponge terpenoid, targets TDP-43, a key factor in several neurodegenerative disorders (2014) *Chemical Communications*, 50 (4), pp. 406-408. DOI: 10.1039/c3cc45454a *Questo paper ha ricevuto l’inside cover del giornale ChemComm.*

9. **Monti, M.C.**, Cohen, S.X., Fish, A., Winterwerp, H.H.K., Barendregt, A., Friedhoff, P., Perrakis, A., Heck, A.J.R., Sixma, T.K., Van Den Heuvel, R.H.H., Lebbink, J.H.G. Native mass spectrometry provides direct evidence for DNA mismatch-induced regulation of asymmetric nucleotide binding in mismatch repair protein MutS (2011) *Nucleic Acids Research*, 39 (18), pp. 8052-8064. DOI: 10.1093/nar/gkr498
10. Margarucci, L., **Monti, M.C.**, Tosco, A., Riccio, R., Casapullo, A. Chemical proteomics discloses petrospongiolide M, an anti-inflammatory marine sesterterpene, as a proteasome inhibitor (2010) *Angewandte Chemie - International Edition*, 49 (23), pp. 3960-3963. DOI: 10.1002/anie.200907153