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**02-6448.3421**



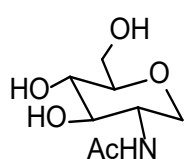
- Progettazione e sintesi di composti di interesse biologico-biomedico (Glicomimetici):

**Inibitori** enzimatici,  
sonde **fluorescenti**,  
agenti di targeting

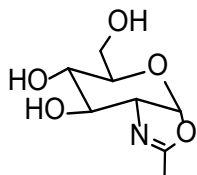
**current**

### Antitumoral Inhibitors

GlcNHAc mimetics



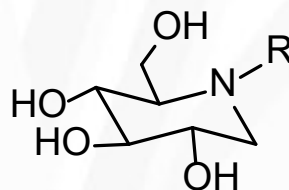
Compound 1



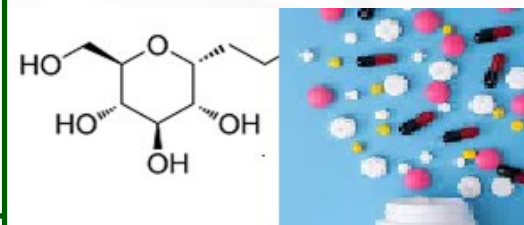
Compound 2

**Prof. Chiaradonna BTBS**

### Glicomimetici

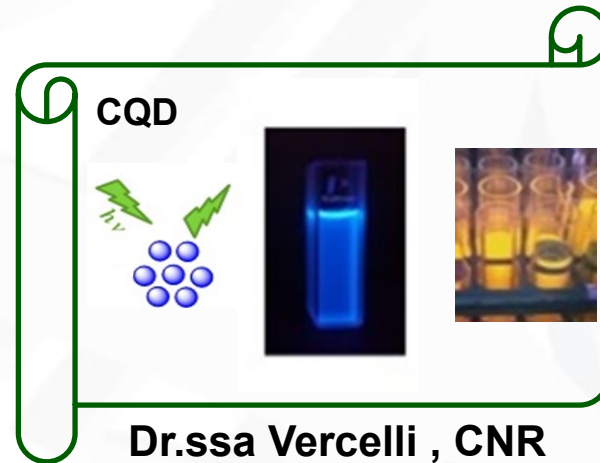
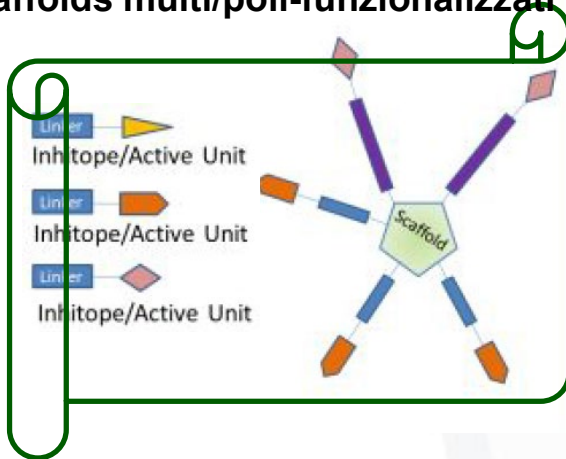


### Gluko-targeting

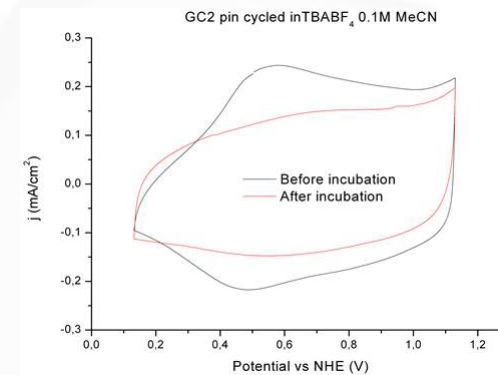
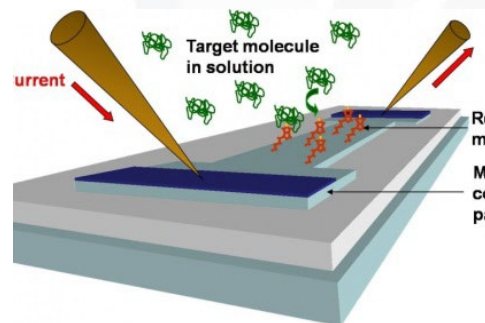


- Nanoparticelle e Sistemi multi-valenti e multi-targeting:  
Scaffolds multi/poli-funzionalizzati con composti ad azione sinergica  
Carbon quantum dots CQD

### Scaffolds multi/poli-funzionalizzati



- Biosensori innovativi**



**Dr.ssa Vercelli , CNR**

1. **B. La Ferla**, G. D'Orazio, G. Zotti, B. Vercelli. Electrochemical Characterization of CdSe monolayers modified with glycosilated molecules *Electroanalysis* (2018) 30(5), 798-802. DOI: 10.1002/elan.201700786.
2. F. Ricciardiello, G. Votta, R. Palorini, I. Raccagni, L. Brunelli, A. Paiotta, F. Tinelli, G. D'Orazio, S. Valtorta, L. De Gioia, R. Pastorelli, R. M. Moresco, **B. La Ferla**, F. Chiaradonna. Inhibition of the Hexosamine Biosynthetic Pathway by targeting PGM3 causes breast cancer growth arrest and apoptosis. *Cell Death Dis.* (2018) 9(3), 377. DOI : 10.1038/s41419-018-0405-4.
3. A. Paiotta, G. D'Orazio, R. Palorini, F. Ricciardiello, L. Zoia, G. Votta, L. De Gioia, F. Chiaradonna, **B. La Ferla**. \* Design, Synthesis and preliminary biological evaluation of GlcNAc-6P Analogues for the Modulation of Phosphoacetylglucosamine Mutase 1 (AGM1/PGM3). *Eur. J. Org. Chem* (2018) 1946-1952. DOI: 10.1002/ejoc.201800183.
4. A Palmioli, **B. La Ferla**\*. Glycofunctionalization of Poly(lactic-co-glycolic acid) Polymers: Building Blocks for the Generation of Defined Sugar-Coated Nanoparticles. *Org. Lett.* (2018) 20(12), 3509-3512. DOI: 10.1021/acs.orglett.8b01287.
5. Allavena, P; Palmioli, A; Avigni, R; Sironi, M; **La Ferla, B\***; Akihiro, M\*. PLGA based nanoparticles for the monocyte-mediated anti-tumor drug delivery system. *Journal of Biomedical Nanotechnology* (2020) 16 (2), 212-223. DOI: 10.1166/jbn.2020.2881.
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7. Palmioli, A.; Ceresa, C.; Tripodi, F.; **La Ferla, B.**; Nicolini, G.; Airoidi, C. On-cell Saturation Transfer Difference NMR characterization of Bombesin binding to GRP receptor. *Bioorg. Chem.* (2020) 99, 103861. DOI: 10.1016/j.bioorg.2020.103861
8. B. Vercelli, R. Donnini, F. Ghezzi, A. Sansonetti, U. Giovanella, **B. La Ferla**. Nitrogen-doped Carbon Quantum Dots Obtained Hydrothermally from Citric Acid and Urea: the Role of the Specific Nitrogen Centers in their Electrochemical and Optical Responses. *Electrochimica Acta* (2021), 387, 138557 DOI: <https://doi.org/10.1016/j.electacta.2021.138557>.
9. A. Palmioli; G. Nicolini; F. Tripodi; A. Orsato; C. Ceresa; E. Donzelli; M. Arici; P. Coccetti; M. Rocchetti; **B. La Ferla**;\* C. Airoidi\* Targeting GRP receptor: design, synthesis and preliminary biological characterization of new non-peptide antagonists of bombesin. *Bioorg. Chem* (2021) 109, 104739..
10. F. Ghezzi, R. Donnini, A. Sansonetti, U. Giovanella, B La Ferla, B. Vercelli Nitrogen-doped Carbon Quantum Dots for Biosensing applications: The Effect of The Thermal Treatments on Electrochemical and Optical Properties. *Molecules* (2022), accepted