

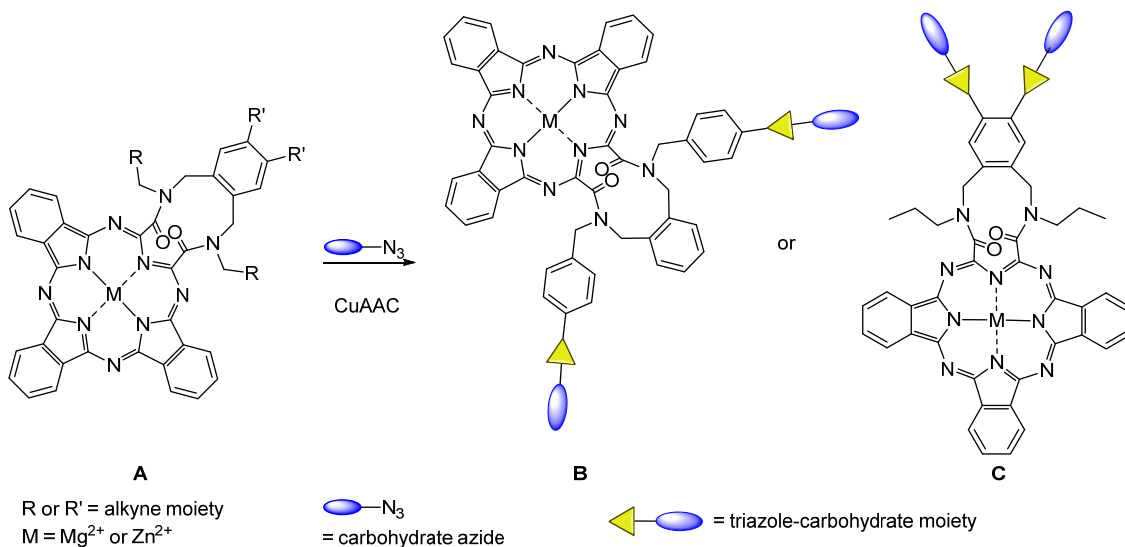
# GLYCOCONJUGATED AB<sub>3</sub>-SECO-PORPHYRAZINES AS POTENTIAL PHOTSENSITIZERS IN PHOTODYNAMIC THERAPY

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Over the last two decades, photodynamic therapy (PDT) became an important alternative to standard of care methods in cancer treatment [1]. Though there are several photosensitizers (PS) already available, the research on new PS with improved photophysical and biological properties is mandatory.

Herein we present the synthesis of new seco-porphyrazines (*secoPz*) A where the two amide moieties are trapped in a eleven membered ring. Our approach to new 3rd generation photosensitizers is to oxidize AB<sub>3</sub>-type aminoporphyrazines (Pz) in order to preempt autoxidation by singlet oxygen during quantum yield measurements and to improve the amine nitrogen's fluorescence quenching characteristics of the latter [2]. To enhance cellular uptake and water solubility carbohydrate moieties are attached to the *secoPz* via 1,2,3-triazoles (B and C). This postmodification allows the use of carbohydrates with various protecting groups and the exchange of the central metal ion from Mg<sup>2+</sup> to more stable and suitable metals like Zn<sup>2+</sup>.



[1] N. Shishkova, O. Kuznetsova, T. Berezov, *Cancer Biol. Med.* **2012**, 9, 9-17.

[2] A. Garrido Montalban, S. M. Baum, A. G. M. Barrett, B. M. Hoffman, *Dalton Trans.* **2003**, (11), 2093-2102.