

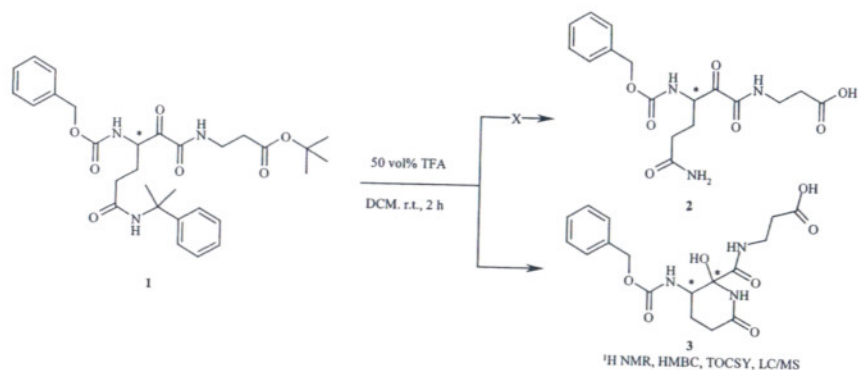
XVth Conference on Heterocycles in Bio-organic Chemistry - 2013

## PEPTIDIC $\alpha$ -KETOAMIDES WITH GLUTAMINE P<sub>1</sub> SIDE CHAIN

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As a part of the program for design & synthesis of malarial protease PfSUB1 inhibitors,  $\alpha$ -ketoamides based on the substrate nonprime sequence KITAQ were targeted [1]. Ketoamide containing protected glutamine side chain **1** was prepared as a model compound and subjected to deprotection conditions. Formation of cyclic tautomer **3** was observed as a major product while expected compound **2** was present in a trace amount (ca 5 %). This was obviously due to strong electron withdrawing  $\alpha$ -keto group in ketoamide **2**.



These results suggest that biosteric replacements for the glutamine side chain are necessary to prepare analogues of  $\alpha$ -ketoamides based on KITAQ sequence.

### References:

- Withers-Martinez, C., Blackman, M.J. *Int. J. Parasitol.* **2012**, *42*, 597.

Bioheterocycles



Riga, 2013

## XVth International Conference "Heterocycles in Bio-organic Chemistry"

PROGRAM AND ABSTRACT BOOK

Riga, Latvia  
May 27th – 30th, 2013

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