

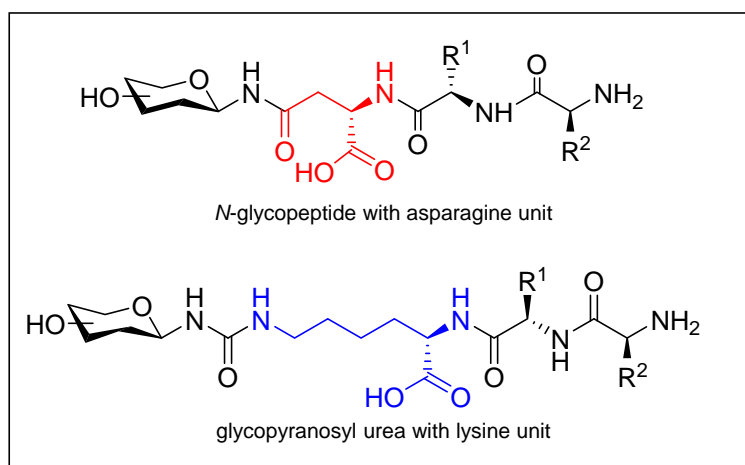
SYNTHESIS OF NEW GLYCOPEPTIDES

Laura Sršan and Thomas Ziegler*

University of Tuebingen, Auf der Morgenstelle 18, 72076 Tuebingen, Germany,
thomas.ziegler@uni-tuebingen.de

The study of interactions between oligosaccharides and peptides on cell surfaces provides detailed insights into biological recognition processes [1]. Since it is nearly impossible to isolate natural glycopeptides from biological material due to microheterogeneity it is important to get access to peptido- and glycopeptido-mimetics via organic synthesis for further biological investigation. Over the last decades different peptide and glycopeptide coupling methods have been published which usually includes the activation of the electrophilic carbon center [2].

In this work, we present the synthesis and characterization of new β -*N*-glycosidic linked tripeptides containing cell related building blocks like for instance asparagine and lysine using the HBTU/DIPEA condensation method and Fmoc/*t*Bu protecting strategy [3].



These unprotected peptidomimetics will be investigated by electron-spray beam deposition coupled with scanning tunneling microscopy on a single molecule level, a new technology developed by the Max Planck Institute for Solid State Research [4].

[1] G. W. Hart, R. J. Copeland, *Cell* **2010**, *143*, 672-676.,

[2] S.-Y. Han, Y.-A. Kim, *Tetrahedron* **2004**, *60*, 2447-2467.,

[3] H. Kunz, *Angew. Chem., Int. Ed. Engl.* **1987**, *26*, 294-308.,

[4] S. Abb, L. Harnau, R. Gutzler, S. Rauschenbach, K. Kern, *Nat. Comm.* **2016**, *7*, 10335-10341.