



# ESOC 2009

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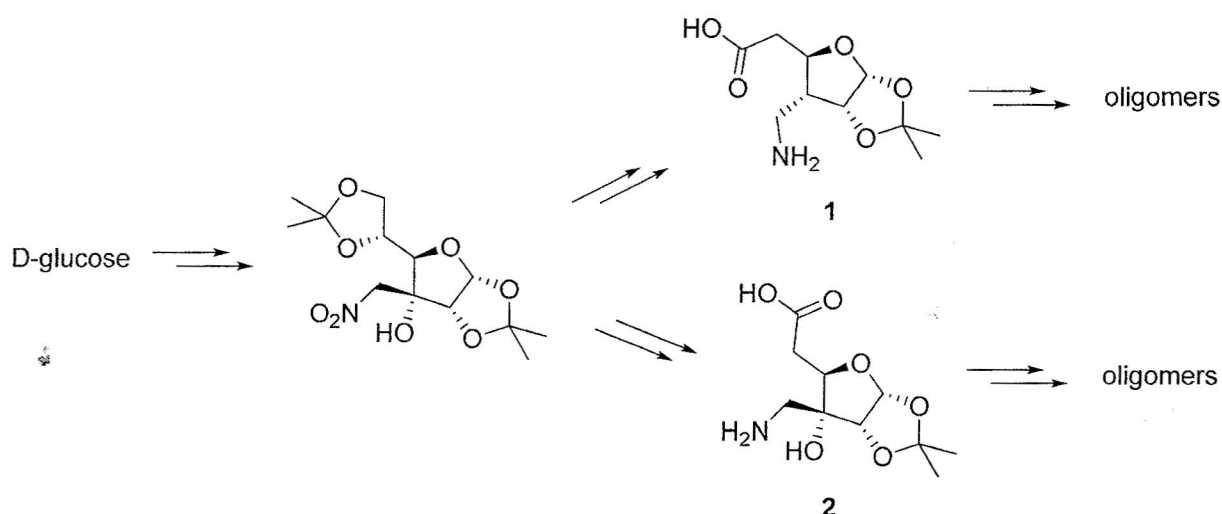
## Book of Abstracts

12<sup>th</sup> - 16<sup>th</sup> July, 2009 - Prague - Czech Republic  
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## THE SYNTHESIS OF NOVEL SUGAR AMINO ACIDS

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Sugar amino acids (SAAs) have been extensively studied recently as dipeptide isosteres and peptidomimetics,<sup>1</sup> foldamers,<sup>2</sup> versatile platforms in combinatorial chemistry,<sup>3</sup> and glycosidase inhibitors.<sup>4</sup> SAA oligomers, also known as carbopeptoids, present unique self-assembling secondary structures.<sup>5</sup> However, most known SAAs have functional groups attached directly to the sugar ring.<sup>7</sup>



We want to present here synthesis of novel SAA **1** and **2**, derived from  $\alpha$ -D-glucose. Placing  $-\text{CH}_2-$  linkers between functional groups and sugar platform will increase degree of freedom and would set stage for interesting secondary structures for oligomers formed from **1** and **2**.

### References:

- 1) (a) Long, D.D.; Baker, C.M.; Odell, B.; Grant, G.H.; Edwards, A.A.; Tranter, G.E.; Fleet, G.W.J.; Smith, M.D. *J. Org. Chem.* **2005**, *70*, 2082-2090, (b) Jensen, K. J.; Brask, J. *Biopolymers* **2005**, *80*, 747-761.
- 2) Graf von Roedern, E.; Lohof, E.; Hessler, G.; Hoffmann, M.; Kessler, H. *J. Am. Chem. Soc.* **1996**, *118*, 10156-10167.
- 3) (a) Schweizer, F. *Angew. Chem. Int. Ed.* **2002**, *41*, 230-253, (b) Gruner, S.A.W.; Locardi, E.; Lohof, E.; Kessler, H. *Chem. Rev.* **2002**, *102*, 491-514.
- 4) Asano, N.; Nash, R.J.; Molyneux, R.J.; Fleet, G.W.J. *Tetrahedron: Asymmetry* **2000**, *11*, 1645.
- 5) Edwards, A.A.; Alexander, B.D.; Fleet, G.W.J.; Tranter, G.E. *Chirality* **2008**, *20*, 969-972.
- 6) Risseeuw, M.D.P.; Overhand, M.; Fleet G.W.J.; Simone, M.I. *Tetrahedron: Asymmetry* **2007**, *18*, 2001-2010.