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Alkylated and bicyclic sugar amino acids : synthesis and applications

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List of Publications

Synthesis of functionalized heterocycles via a tandem Staudinger/aza-Wittig/Ugi multicomponent reaction.

M. S. M. Timmer, M. D. P. Risseeuw, M. Verdoes, D. V. Filippov, J. R. Plaisier, G. A. van der Marel, H. S. Overkleeft, J. H. van Boom.

Tetrahedron: Asymmetry **2005**, *16*, 177-185

Synthesis of tritium labeled KRN7000.

M. D. P. Risseeuw, C. R. Berkers, H. L. Ploegh, H. Ovaa.

Tetrahedron Letters **2006**, *47*, 3677-3679.

The synthesis of cis- and trans-fused bicyclic sugar amino acids.

M. D. P. Risseeuw, G. M. Grotenbreg, M. D. Witte, A. W. Tuin, M. A. Leeuwenburgh, G. A. Van der Marel, H. S. Overkleeft, M. Overhand.

European Journal Of Organic Chemistry **2006**, 3877-3886.

Synthesis of alkylated sugar amino acids: conformationally restricted L-Xaa-L-Ser/Thr mimics.

M. D. P. Risseeuw, J. Mazurek, A. van Langenvelde, G. A. van der Marel, H. S. Overkleeft, M. Overhand.

Organic & Biomolecular Chemistry **2007**, *5*, 2311-2314.

Acetylene functionalized BODIPY dyes and their application in the synthesis of activity based proteasome probes.

M. Verdoes, U. Hillaert, B. I. Florea, M. Sae-Heng, M. D. P. Risseeuw, D. V. Filippov, G. A. van der Marel, H. S. Overkleeft.

Bioorganic & Medicinal Chemistry Letters **2007**, *17*, 6169-6171.

A compendium of sugar amino acids (SAA): scaffolds, peptide- and glyco-mimetics.

M. D. P. Risseeuw, M. Overhand, G. W. J. Fleet, M. I. Simone.

Tetrahedron: Asymmetry **2007**, *18*, 2001-2010.

Pyranocyclopropanyl sugar amino acids, a new class of constrained (di)peptide isosteres.

M. D. P. Risseeuw, G. A. van der Marel, H. S. Overkleeft M. Overhand.

Tetrahedron: Asymmetry **2009**, *20*, 945-951.

Synthesis and evaluation of D-gluco-pyranocyclopropyl amines as potential glucosidase inhibitors.

M. D. P. Risseeuw, R. J. B. H. N. van den Berg, W. E. Donker-Koopman, M. Overhand, G. A. van der Marel, J. M. F. G. Aerts; H. S. Overkleeft.

Accepted for publication in *Bioorganic & Medicinal Chemistry Letters*.

Curriculum Vitae

Martijn Risseeuw was born in Oostburg and grew up in Cadzand. After completing his secondary education at the Zwin College in Oostburg in 1999, he left his home region of Zeeland to start his academic studies at Leiden University. In 2000, the propedeutic phase was successfully completed. Between the summers of 2001 and 2002, he held the position of treasurer of the *Chemisch Dispuut Leiden*.

From September 2002 until October 2003 he conducted undergraduate research at the group of the late Prof. Dr. J.H. van Boom and of Prof. Dr. H.S. Overkleeft. Under the supervision of Dr. M.S.M. Timmer a research project revolving around the development of the SAWU-3CR reaction using carbohydrate derived substrates was completed.

From November 2003 until June 2004 additional undergraduate research was carried out at Harvard Medical School in Boston (USA). During this period, both a natural and a tritiated derivative of the antigenic CD1d ligand α -galactosylceramide were prepared. The results obtained during the spell in Boston were published in *Tetrahedron Letters* in 2006.

After returning to Leiden, his degree (Drs., the equivalent of MSc.) was obtained in November 2004. Shortly before, in October of that year, he was affiliated as a graduate student at Leiden University. The work described in this thesis was conducted under the supervision of Prof. H.S. Overkleeft, Prof. G.A. van der Marel and Dr. M. Overhand.

Parts of the research described in this thesis were presented at the NWO-CW organic chemistry meetings in Lunteren (2005-2008, poster presentations), the HRSMC summer school in Maastricht (2005, poster presentation), the KNCV Organic Chemistry meeting in Amsterdam (2007, oral presentation) and the International Symposium on Advances in Synthetic and Medicinal Chemistry in Saint Petersburg, Russia (2007, poster presentation).

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