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## **Mechanism-based inhibitors and probes for neuraminidases**

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# List of publications

## **N-Acyl Oseltamivir (Tamiflu) Aziridine is a Mechanism-Based Irreversible Influenza Neuraminidase Inhibitor**

M.B.L. Vriends, E. Moran, T. Hansen, Z.W.B. Armstrong, X. Xin, M. Biezeno, M.J. Ferraz, S.P. Schröder, S.G. Withers, G.A. van der Marel, M.E. Artola, J.M.F.G. Aerts, C. Rovira, J.D.C. Codée, G.J. Davies and H.S. Overkleeft  
*Manuscript in preparation*

## **Exploring the Anthracycline Chemical Space for more Potent Analogues**

M.A. van Gelder\*, S.Y. van der Zanden\*, R.A. Wagenveld, M.B.L. Vriends, G.A. van der Marel, J.D.C. Codée, H.S. Overkleeft, J.J.C. Neefjes and D.P.A. Wander  
*Manuscript in preparation*

## **Synthetic (*N,N*-dimethyl)doxorubicin glycosyl diastereomers to dissect modes of action of anthracycline anticancer drugs**

D.P.A. Wander\*, S.Y. van der Zanden\*, M.B.L. Vriends, B.C. van Veen, J.G.C. Vlaming, T. Bruyning, T. Hansen, G.A. van der Marel, H.S. Overkleeft, J.J.C. Neefjes and J.D.C. Codée, *Journal of Organic Chemistry*, **2021**, 86(8): 5757-5770.

\* indicates first authorship

# *Curriculum vitae*

Merijn Vriends was born on 18 October 1994 in Breda. After obtaining his secondary education (HAVO) diploma at the Mencia de Mendoza lyceum in Breda in 2012, he read chemistry at Avans University of Applied Science in Breda, specialising in both analytical- and organic chemistry. He spent his final year as an Erasmus exchange student at Keele University in the United Kingdom, where he worked on deuterium labelled fatty acids for biosynthesis studies in ants in the groups of dr. Falko Drijfhout and dr. Matthew O'Brien. In June 2016 he obtained his first degree. He then started the Chemistry master's programme at Leiden University in September 2016, specialising in Chemical Biology. During this time, he worked on his research internship in the department of Bio-Organic Synthesis under the guidance of dr. Dennis Wander, prof. dr. Jeroen Codée, prof. dr. Gijs van der Marel and prof. dr. Hermen Overkleeft. In November 2018 he defended his thesis titled "On the synthesis of doxorubicin isomers" to obtain his MSc degree. He continued working with prof. dr. Jeroen Codée and prof. dr. Hermen Overkleeft when he started his doctoral studies in January 2019, working on irreversible inhibitors and probes for neuraminidases. Results of these studies are described in this thesis. Parts of this research were carried out in collaboration with the research group of prof. dr. Gideon Davies at the York Structural Biology Laboratory and the group of prof. dr. Carme Rovira at the Catalan Institution for Research and Advanced Studies (ICREA) and the University of Barcelona.