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Exploring chemical space in covalent and competitive glycosidase inhibitor design

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List of publications

Synthesis and biochemical evaluation of novel uronic acid-type 1-*N*-iminosugars derived from siastatin B as competitive heparanase inhibitors

Chen, Y.; van den Nieuwendijk, A. M. C. H.; Armstrong, Z.; Wu, L.; Overkleeft, H. S. and Davies, G. J., *manuscript in preparation*.

Design, synthesis and structural analysis of glucocerebrosidase imaging agents

Rowland, R. J.; * Chen, Y.; * Breen, I.; Wu, L.; Offen, W. A.; Beenakker, T. J. M.; Su, Q.; van den Nieuwendijk, A. M. C. H.; Aerts, J. M. F. G.; Artola, M.; Overkleeft, H. S. and Davies, G. J., *Chem. Eur. J.* **2021**, *27*, 1-13.

Activity-based protein profiling of retaining α -amylases in complex biological samples

Chen, Y.; * Armstrong, Z.; * Artola, M.; Florea, B. I.; Kuo, C.-L.; de Boer, C.; Rasmussen, M. S.; Abou Hachem, M.; van der Marel, G. A.; Codée, J. D. C.; Aerts, J. M. F. G.; Davies, G. J.; and Overkleeft, H. S., *J. Am. Chem. Soc.* **2021**, *143*, 2423-2432.

Direct stereoselective aziridination of cyclohexenols with 3-amino-2-(trifluoromethyl)quinazolin-4(3*H*)-one in the synthesis of cyclitol aziridine glycosidase inhibitors

Artola, M.; Wouters, S.; Schröder, S. P.; de Boer C.; Chen, Y.; Petracca, R.; van den Nieuwendijk, A. M. C. H.; Aerts, J. M. F. G.; van der Marel, G. A.; Codée, J. D. C. and Overkleeft, H. S., *Eur. J. Org. Chem.* **2019**, *6*, 1397-1404.

Interrupted Morita–Baylis–Hillman-type reaction of α -substituted activated olefins

Gu, J.; Xiao, B.-X.; Chen, Y.-R.; Li, Q.-Z.; Ouyang, Q.; Du, W.; Chen, Y.-C., *Org. Lett.* **2018**, *20*, 2088-2091.

Regioselective asymmetric formal (3+2) cycloadditions of nitron ylides from isatins and enals

Chen, Y.-R.; Zhan, G.; Du, W.; Chen, Y.-C., *Adv. Synth. Catal.* **2016**, *358*, 3759-3764.

Asymmetric Diels–Alder and cascade reaction of quinone imine ketals and 2,4-dienals: construction of chiral benzo[*de*]quinolone derivatives

Gu, J.; Xiao, B.-X.; Chen, Y.-R.; Du, W.; Chen, Y.-C., *Adv. Synth. Catal.* **2016**, *358*, 296-302.

* Shared first-authorship

Curriculum Vitae

Yurong Chen was born on 7th November 1992 in Kunming, Yunnan, China. In 2010 she graduated from Kunming No.1 High School and commenced her Bachelor studies in Pharmacy at West China School of Pharmacy at Sichuan University, Sichuan, China. During this period she became interested in Medicinal Chemistry and performed a six-month research internship on the chemical synthesis of indole derivatives and α,β -unsaturated aldehydes in Prof. dr. Ying-Chun Chen's group. In 2014, she obtained her BSc degree and was awarded "Outstanding Graduate of Sichuan University".

In 2014, she started her Master studies in Medicinal Chemistry at Sichuan University. Here she studied asymmetric catalysis for the construction of biologically active molecules under the supervision of Qing-Zhu Li, Dr. Wei Du and Prof. dr. Ying-Chun Chen. Her master thesis was entitled: "Regioselective asymmetric formal (3+2) cycloadditions of nitron ylides from isatins and enals" and this work was published in *Advanced Synthesis & Catalysis*. During her Master's education, she was awarded the "Second Class Academic Scholarship" of Sichuan University for three consecutive years.

After obtaining her MSc degree in 2017, she was awarded a scholarship from the Chinese Scholarship Council (CSC) to start her doctoral research in the Bio-organic Synthesis group at Leiden University under the supervision of Prof. dr. Hermen Overkleeft, Prof. dr. Jeroen Codée and Dr. Marta Artola. Her PhD study focused on the development of activity-based probes and inhibitors for the study of several retaining glycosidases. Parts of the research described in this Thesis were presented on posters at CHAINS (2018 and 2019, Veldhoven, the Netherlands), the Annual ABPP conference (2019, Leuven, Belgium), the European Carbohydrate Symposium (2019, Leiden, the Netherlands) and Reedijk Symposium (2019, Leiden, the Netherlands).