Design of selective inhibitors for human immunoproteasomes

Dekker, P.M.

List of publications

Immunoproteasome inhibitor-doxorubicin conjugates target Multiple Myeloma cells and release Doxorubicin upon low-dose photon irradiation.

E. Maurits, M. J. van de Graaff, S. Maiorana, D. P. A. Wander, S. Y. van der Zanden, P. M. Dekker, B. I. Florea, J. C. Neefjes, H. S. Overkleeft, S. I. van Kasteren

J. Am. Chem. Soc., **2020**, *142*, 7250-7253

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Structure-based design of peptide epoxyketone selectively targeting the three human immunoproteasome active sites

E. Maurits, E. M. Huber, P. M. Dekker, X. Wang, B. I. Florea, M. Groll, H. S. Overkleeft

Manuscript in preparation

Immunoproteasome selective inhibitors

P.M. Dekker, E. Maurits, B. I. Florea, H. S. Overkleeft, E.M. Huber, M. Groll. PCT/EP2024/072638. Filing date: 9 august 2024

Curriculum vitae

Patrick Mark Dekker was born on the 15th of March 1995 in Rotterdam, the Netherlands. After completing his secondary education at the Jacob van Liesveldt in Hellevoetsluis in 2013, with a major in Life Science & Technology (including Biology) he commenced his bio-pharmaceutical sciences bachelor's degree at the Leiden university. In 2016 he started his bachelor internship at the bio-organic synthesis department under the practical supervision of dr. Tim Hogervorst, working on C-linked fucosides as potential immune-stimulating agents. After obtaining his Bachelor's degree (2016), he enrolled in the master program Chemistry at Leiden year, where in 2017 and 2018 he carried out a master internship under the practical supervision of dr. Elmer Maurits, working on the development of an aziridine-ketone electrophilic trap for use in proteasome inhibitors. He obtained his Master's degree in 2019. From March 2019 until November 2023, he conducted his PhD studies at Leiden University in the bio-organic synthesis group under the supervision of prof. dr. Herman Overkleeft and dr. Bogdan Florea. Parts of his doctoral work were presented in the format of a poster at the annual ABPP meeting in Leuven (2019), presented in a visit to collaborators situated in St. Gallen Switzerland (2021) and followed the scientific conduct course provided by the graduate school of science (2022). In addition, part of his doctoral work was patented and with this Patrick together with dr. Elmer Maurits, dr. Bogdan Florea and prof. dr. Herman Overkleeft participated in and won the Venture challenge program organized by lifescience@work in association with NWO (2022). That same year Patrick participated in and presented at the HIHR event (2022) further exploring how to further valorize the work described in his doctoral work. From December 2023, Patrick continued with proteasome inhibitor research in the group of prof. dr. Herman Overkleeft as a post-doctoral fellow with the goal of further developing the patented compounds described in this thesis. Shortly thereafter, Patrick was awarded the faculty of impact grant (2024), where he will combine his post-doctoral work with a two-year program designed to further develop his entrepreneurial skills and valorize the proteasome inhibitor research described in his doctoral work. To this purpose, jointly with dr. Elmer Maurits, he incorporated iProtics as a start-up biotechnology company (2024).