Synthesis of chemical tools to study the immune system

Graaff, M.J. van de

List of publications

1) **Single-cell analysis of regions of interest (SCARI) using a photosensitive tag**

Anne M. van der Leun, Mirjam E. Hoekstra, Luuk Reinalda, Colinda L. G. J. Scheele, Mireille Toebes, Michel J. van de Graaff, Linda Y. Y. Chen, Hanjie Li, Akhiad Bercovich, Yaniv Lubling, Eyal David, Daniela S. Thommen, Amos Tanay, Jacco van Rheenen, Ido Amit, Sander I. van Kasteren, Ton N. Schumacher

Nat.Chem.Biol. **2021**, *17*, 1139-1147

2) **Simplified monopalmitoyl Toll-like Receptor 2 ligand mini-UPam for self-adjuvanting neoantigen-based synthetic cancer vaccines**

Thomas C. van den Ende, Jeroen M. M. Heuts, Geoffroy P. P. Gential, Marten Visser, Michel J. van de Graaff, NataschjaI. Ho, Wim Jiskoot, A. Rob P. M. Valentijn, Nico J. Meeuwenoord, Herman S. Overkleeft, Jeroen D. C. Codée, Sjoerd H. van der Burg, Els M. E. Verdegaal, Gijsbert A. van der Marel, Ferry Ossendorp, Dmitri V. Filippov

ChemBioChem **2021**, *22*, 1215-1222

3) **Immunoproteasome inhibitor–doxorubicin conjugates target multiple myeloma cells and release doxorubicin upon low-dose photon irradiation**

Michel J. van de Graaff, Elmer Maurits, Santina Maiorana, Dennis P. A. Wander, Patrick M. Dekker, Sabina Y. van der Zanden, Bogdan I. Florea, Jacques J. C. Neefjes, Herman S. Overkleeft*, and Sander I. van Kasteren

J. Am. Chem. Soc. **2020**, *142* (16), 7250-7253

4) **An alternative model for type I interferon induction downstream of human TLR2**

Timo Oosenbrug, Michel J. van de Graaff, Mariëlle C. Haks, Sander I. van Kasteren, Maaike E. Ressing

J. Biol. Chem. **2020**, *295* (42), 14325-14342

5) **Conditionally controlling human TLR2 activity via trans-cyclooctene caged ligands**

Michel J. van de Graaff, Timo Oosenbrug, Mikkel H. S. Marqvorsen, Clarissa R. Nascimento, Mark A. R. de Geus, Bénédicte Manoury, Maaike E. Ressing, and Sander I. van Kasteren

Bioconjug. Chem. **2020**, *31* (6), 1685-1692

6) **Peptides conjugated to 2-alkoxy-8-oxo-adenine as potential synthetic vaccines triggering TLR7**

Geoffroy P.P. Gential, Tim P. Hogervorst, Elena Tondini, Michel J. van de Graaff, Herman S. Overkleeft, Jeroen D.C. Codée, Gijsbert A. van der Marel, Ferry Ossendorp, Dmitri V. Filippov

Bioorganic Med. Chem. Lett. **2019**, *29* (11), 1340-1344

7) **Chemical tools for studying TLR signaling dynamics**

Michel J. van de Graaff, Timo Oosenbrug, Maaike E. Ressing, Sander I. van Kasteren

Cell Chem. Biol. **2017**, *24* (7), 801-812

8) **The optimization of bioorthogonal epitope ligation within MHC-I complexes**

Joanna B. Pawlak, Brett J. Hos, Michel J. van de Graaff, Otty A. Megantari, Nico Meeuwenoord, Herman S. Overkleeft, Dmitri V. Filippov, Ferry Ossendorp, and Sander I. van Kasteren

ACS Chem. Biol. **2016**, *11* (11), 3172-3178

Curriculum Vitae

Michel Johan van de Graaff was born on the 8th of April 1991 in Delft, the Netherlands. After graduating from the high school Stanislascollege Westplantsoen (VWO) in 2009, he started the bachelor Molecular Science and Technology at the Leiden University and the Delft University of Technology. During his bachelor programme in 2012, he spent one year as a board member of the chemistry study association, Chemisch Dispuut Leiden (CDL).

In 2013 he obtained his bachelor degree and continued his education with the master program Chemistry at the Leiden University. His research internship in the Bio-organic Synthesis group under supervision of dr. Geoffroy Gential focused on the synthesis of TLR-ligands and their synthetic-long peptide conjugates thereof. In 2015 he obtained his master's degree *cum laude*. From September 2015 until December 2019, he conducted his PhD studies in the Bio-organic Synthesis department of the Leiden Institute of Chemistry, under the supervision of dr. Sander I. van Kasteren. Part of his research was presented orally at NWO CHAINS in Veldhoven (2018) and with posters during NWO CHAINS (2017) and the 4th annual symposium of the Institute of Chemical Immunology in Amsterdam (2018).

Since January 2020, he is working as a Formulation Scientist at SeraNovo B.V. in Leiden.

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