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Puzzling pyrophosphates: synthetic methodologies for ADP-ribosylated biopolymers

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Citation
Wijngaarden, S. (2026, February 20). *Puzzling pyrophosphates: synthetic methodologies for ADP-ribosylated biopolymers*. Retrieved from https://hdl.handle.net/1887/4292395

Version:	Publisher's Version
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Note: To cite this publication please use the final published version (if applicable).

Curriculum Vitae

Sven Wijngaarden was born on September 17, 1996, in Den Helder, the Netherlands. After completing secondary education (VWO) with a specialization in Life Science and Technology at the Lyceum aan Zee in Den Helder in 2014, he enrolled in the joint bachelor's program Molecular Science and Technology at Leiden University and Delft University of Technology. He carried out his bachelor research internship in the group of Molecular Physiology, led by prof.dr. M. van der Stelt, under the daily supervision of Dr. A. Bakker. His research focused on the design and synthesis of covalent inhibitors for FLT3 kinase, an important oncogenic target in acute myeloid leukemia. He obtained his Bachelor of Science degree in 2018.

In the same year, Sven commenced the Master's program in Chemistry at Leiden University, specializing in Organic Chemistry and Chemical Biology. His master's research internship was conducted in the Department of Chemical Immunology, supervised by prof.dr. S.I. van Kasteren and under daily supervision of Dr. W. Doelman. His research was directed toward the total synthesis of Myelin Oligodendrocyte Glycoprotein, a suspected immunogenic protein in Multiple Sclerosis. He graduated with honors in 2020.

From 2020 to 2025, Sven pursued his PhD research in the Bio-organic Synthesis group at Leiden University, under the supervision of prof.dr. H.S. Overkleeft and Dr. D.V. Filippov. Parts of his doctoral work were presented at international and national conferences, including the Cold Spring Harbor Conference (New York, USA, 2024), the Dutch Peptide Symposium (Leiden, the Netherlands, 2023), as well as several in-house symposia.

In 2025, Sven continued his academic career as a postdoctoral researcher in a collaborative project between the Department of Nephrology at Leiden University Medical Center and the Supramolecular & Biomaterials Chemistry group at Leiden University. Under the joint supervision of prof.dr. A.J. Rabelink and prof.dr. A. Kros, his research focuses on the targeted delivery of RNA to kidney cells, as part of a broader program on mapping the kidney metabolic microenvironment to combat kidney disease.

List of publications

Fully protected pyrophosphates via phosphorbromidates for the synthesis of biopolymers.
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