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Trans-ruthenium(II) complexes for photoactivated cChemotherapy: from design to anticancer activity

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Curriculum Vitae

Wessel Verbeet was born on November 14, 1992, in Vlaardingen, the Netherlands. After completing his secondary education (havo) at PENTA College Blaise Pascal in Spijkenisse in 2011, he started his bachelor's studies in Chemistry at Hogeschool Rotterdam. During this period, he conducted a research internship supervised by Prof. dr. Leonard J. Prins and under the daily supervision of Dr. Flavio della Salle at the University of Padova. His thesis, entitled "*Synthesis and Characterization of Novel Surfactants for the Creation of Life-like Supramolecular assemblies*", was awarded *Best Thesis of 2016 at Hogeschool Rotterdam* by Stichting Haags Laboratorium Onderwijs and received an honorable mention in the *Gouden Spatel 2016* competition organized by KNCV. Wessel obtained his BSc degree in Applied Sciences in 2016.

In the same year, he started his master's studies in Chemistry at Leiden University. His master's research internship was conducted in the group of Prof. dr. Alexander Kros, under the daily supervision of Dr. Niek S. A. Crone. His thesis, entitled "*Designing Intramolecular Cross-linked Peptides for Photoactivated Coiled-coil Mediated Membrane Fusion*", was completed in 2019, after which he obtained his MSc degree.

In September 2019, Wessel started his doctoral research studies in the Metals in Catalysis, Biomimetics & Inorganic Materials (MCBIM) group under the supervision of Prof. dr. Sylvestre Bonnet and Prof. dr. Elisabeth Bouwman at Leiden University. His doctoral research focused on the design and synthesis of *trans* ruthenium(II) complexes for applications in photoactivated chemotherapy. Parts of his doctoral research were presented at national and international conferences, including the *3rd Frontiers in Photochemistry* conference (2022 Cancun, Mexico), the *44th International Conference on Coordination Chemistry* (2022 Rimini, Italy) and the *16th International Symposium on Applied Bioinorganic Chemistry* (2023 Ioannina, Greece). As part of the PhD program, Wessel also followed several courses, namely, Scientific Conduct offered by the Graduate School of Leiden University and the Advanced Summer School on Photochemistry 2022 offered by the Holland Research School of Molecular Chemistry (HRSMC).

In October 2024, Wessel continued his academic career as a postdoctoral researcher in the group of Prof. dr. Alexander Kros as part of the *Cat4CanCenter Synergy* project, in collaboration with the University of Amsterdam and Netherlands Cancer institute (NKI).

List of Publications

Dual Targeting of NAMPT and Tubulin with *Trans*-Ruthenium(II)-based Photoactivated Chemotherapy Complexes

W. Verbeet, S. K. Götzfried, A. Kornienko, S. Bonnet*, *in preparation*

Building a *Trans* Dissymmetric Ruthenium(II) Complex for Sequential Ligand Photosubstitution

W. Verbeet, A. Jiao, M. A. Siegler, S. Bonnet*, *in preparation*

Simple and Efficient Method for Mono- and Di-Amination of Polypyridine *N*-Oxides

W. Verbeet‡, Y. Husiev‡, S. Bonnet*, *Eur. J. Org. Chem.* **2024**, 27, e202400054

Ruthenium-Peptide Conjugates for Photoactivated Chemotherapy

I. Regeni*, M. Puister, Y. Husiev, W. Verbeet, I. M. Nardella, M. L. A. Hakkennes, K. Kayastha, S. Brünle, S. Bonnet*, *in preparation*

Stepwise Hierarchical Self-Assembly of Supramolecular Amphiphiles into Higher-Order Three-Dimensional Nano Structure

F. della Salle, W. Verbeet, S. Silvestrini, I. Fortunati, C. Ferrante, L. J. Prins*, *ChemNanoMat* **2018**, 4, 821 - 830

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