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## **Molecular characterization of copper-dependent enzymes involved in *Streptomyces* morphology**

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# Curriculum Vitae

Maria Louise Catharina (Marloes) Petrus was born on the 8<sup>th</sup> of January, 1988, in Heemskerk, The Netherlands. In 2006, she graduated from the Kennemer College in Beverwijk with honor. In September of that same year she started her Life, Science & Technology studies at Leiden University and Delft University of Technology. As part of the Bachelor program she completed an internship at the Leiden University Medical Centre in the group of Prof. Dr. Rob C. Hoeben under supervision of Dr. Danijela Koppers-Lalic. During this internship she identified epitopes of the Adenovirus capsule proteins that are recognized by human immunoglobulins. After obtaining her Bachelor degree she continued with her Master's in Life Science & Technology at Leiden University in 2009. During her Master's internship in the Molecular Biotechnology group under supervision of Prof. Dr. Gilles P. van Wezel and Dr. Magdalena A. Świątek she was introduced to the research on streptomycetes. Marloes accomplished her Master program with honor in August 2011. In September of that year she started as a PhD-student at the Institute of Biology (Leiden University) under supervision of Dr. Dennis Claessen and Prof. dr. Gilles P. van Wezel. The work done as a PhD student is described in this thesis. Currently Marloes is working as a Scientist Discovery for BioMarin Nederland B.V.

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# Publications

**Petrus, MLC**, Vijgenboom, E, Chaplin, AK, Worrall, JAR, Van Wezel, GP, and Claessen, D (2016) The DyP-type peroxidase DtpA is a Tat-substrate required for GlxA maturation and morphogenesis in *Streptomyces*. *Open Biology* **6**: (1) p. 150149

Chaplin, AK, **Petrus, MLC**, Mangiameli, G, Hough, MA, Svistunenko, DA, Nicholls, P, *et al.* (2015) GlxA is a new structural member of the radical copper oxidase family and is required for glycan deposition at hyphal tips and morphogenesis of *Streptomyces lividans*. *Biochem J* **469**: 433–444.

**Petrus, MLC**, and Claessen, D (2014) Pivotal roles for *Streptomyces* cell surface polymers in morphological differentiation, attachment and mycelial architecture. *Antonie Van Leeuwenhoek* **106**: 127–139.

**Petrus, MLC**, Van Veluw, GJ, Wösten, HAB, and Claessen, D (2014) Sorting of *Streptomyces* cell pellets using a complex object parametric analyzer and sorter. *J Vis Exp* e51178.

Van Veluw\*, GJ, **Petrus\***, **MLC**, Gubbens\*, J, De Graaf, R, De Jong, IP, Van Wezel, GP, *et al.* (2012) Analysis of two distinct mycelial populations in liquid-grown *Streptomyces* cultures using a flow cytometry-based proteomics approach. *Appl Microbiol Biotechnol* **96**: 1301–12.

