Improving targeted gene editing in Arabidopsis thaliana

Kamoen, L.

Curriculum Vitae

Lycka Kamoen was born in 1994 in Haarlem, the Netherlands. Upon completing her high school education at Stedelijk Gymnasium Haarlem, she pursued a Bachelor's degree in Life Science and Technology at Leiden University and Delft University of Technology. In addition to her major, Lycka expanded her knowledge by taking extracurricular courses in Chemistry, Nanobiology, and Physics. Her Bachelor's thesis was conducted at the Industrial Microbiology group of Prof. Jack Pronk, supervised by Prof. Antonius van Maris and Dr. Maarten Verhoeven. The focus of her research was on the growth rate of yeast that had been genetically modified to convert xylose. During her studies, Lycka also engaged in teaching biotechnology to a wide range of learners, from kindergarten children to university students. After earning her Bachelor's degree, Lycka continued her academic journey by enrolling in the Master's program Life Science and Technology at Delft University of Technology, with specialization tracks in Cell Factory and Biochemical Engineering. During this period, she also participated in the iGEM competition. Lycka and her team developed self-assembling biological microlenses using genetically modified *E. coli*. Her Master's program included a thesis in the Industrial Microbiology group in Delft, under the supervision of Prof. Pascale Daran-Lapujade, and Dr. Francine Boonekamp. Her research involved characterizing a yeast strain with a swappable glycolysis pathway. Additionally, Lycka completed an internship at Corbion, a leading bio-based ingredients company, under the supervision of Dr. Packo Lamers. After graduating from her Master's program, she transitioned into the role of a PhD candidate within the Genome Engineering Group of Prof. Marcel Tijsterman and Prof. Paul Hooykaas at the Institute of Biology Leiden. Under the expert guidance of Prof. Marcel Tijsterman and Dr. Sylvia de Pater, Lycka embarked on her doctoral project, of which the results are described in this thesis.