

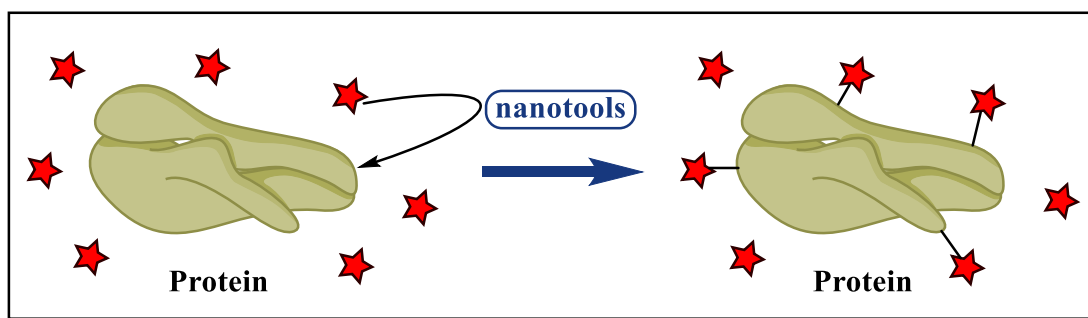
Jordi Keijzer

Supervisor(s)	Dr. Bauke Albada, Prof. Dr. Floris van Delft, Prof. Dr. Han Zuilhof
Project	Development of next generation tools for protein modification
Fields of interest	Bioconjugate chemistry, nanochemistry, bio-orthogonal chemistry, chemical biology
E-mail	jordi.keijzer@wur.nl
Telephone	+31 (0)317482369

Short summary

Post-translational modification (PTM) is nature's preferred method to regulate the activities of proteins. These processes orchestrate cellular events like gene expression, signal transduction, and cell-cell interactions. Today, over 300 types of PTMs have been documented, including O-glycosylation, methylation and oxidation. Nature's success in modifying proteins has inspired scientists from various disciplines to develop artificial protein modification methods. Artificially modified proteins have increased our understanding of biochemical pathways, and have led to novel bio-based materials and improved therapeutics. However, the current artificial methods can be improved when it comes to chemo- and site-selectivity, as well as trigger-responsiveness.

We apply nanometre sized well-defined molecules with a protein targeting moiety and a catalytic moiety to address the above-mentioned challenges. With our nanotools, we are developing next generation tools for artificial protein modification.



Acknowledgement(s)

This research is financed by NWO, the Netherlands Organisation for Scientific Research.

