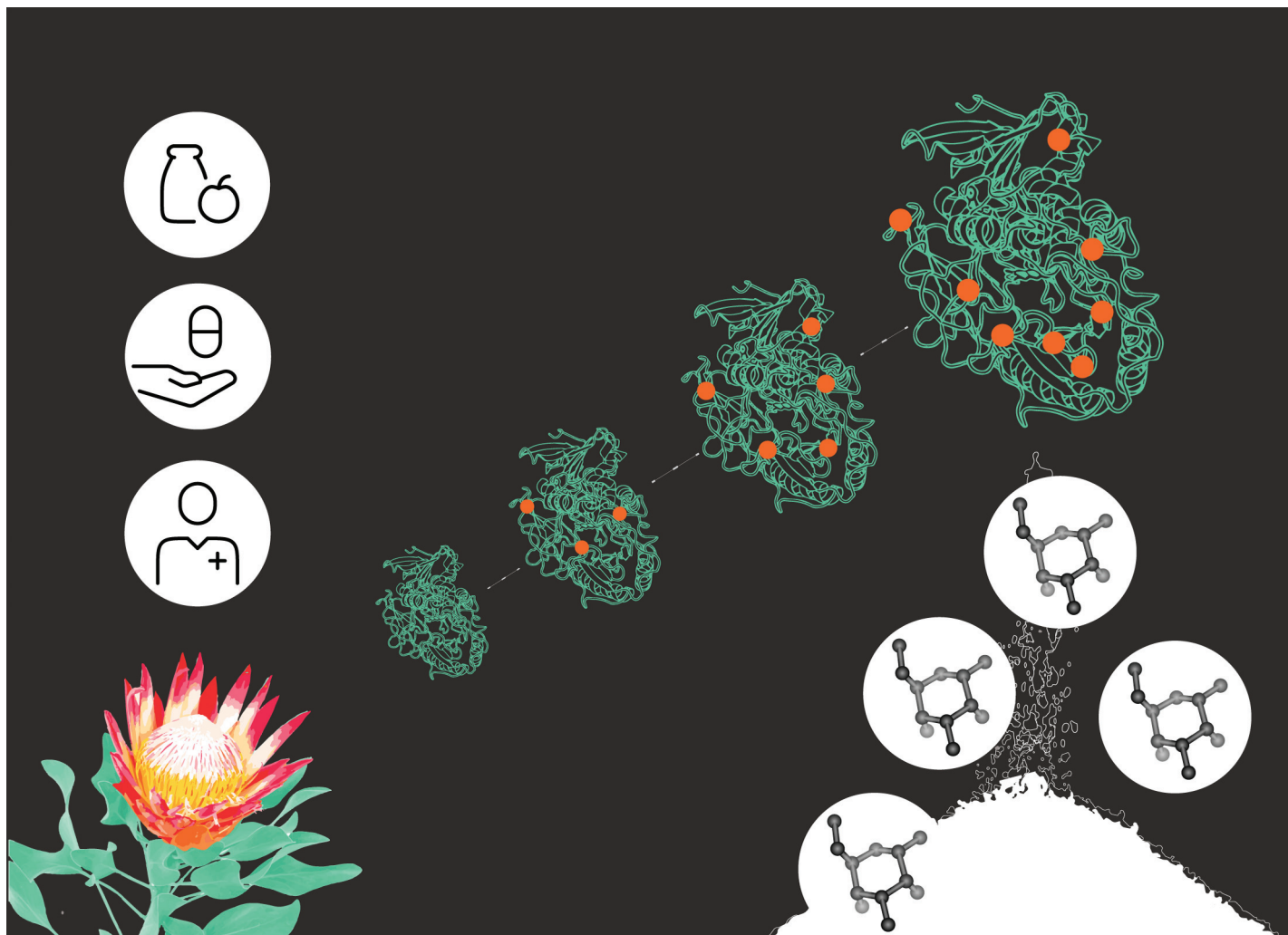


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**Showcasing research from Lgia Martins and Rita Ventura
Labs at Instituto de Tecnologia Qumica e Biolgica
Antnio Xavier (ITQB NOVA) Portugal.**

A new chemo-enzymatic approach to synthesize rare sugars
using an engineered glycoside-3-oxidase

This research highlights the transformative potential
of enzyme engineering through directed evolution for
biotechnological innovation. Using an engineered enzyme,
the team developed a groundbreaking chemo-enzymatic
method to synthesize allose – a rare sugar found in trace
amounts in plants – starting from abundant and cost-
effective compounds. Allose shows promise as a functional
ingredient for applications in food, nutraceuticals, and
pharmaceuticals.

The artwork was designed with Joel Arruda, the
Communication Office, and ITQB NOVA.

As featured in:



See M. Rita Ventura, Lgia O. Martins
et al., *Green Chem.*, 2025, 27, 1044.