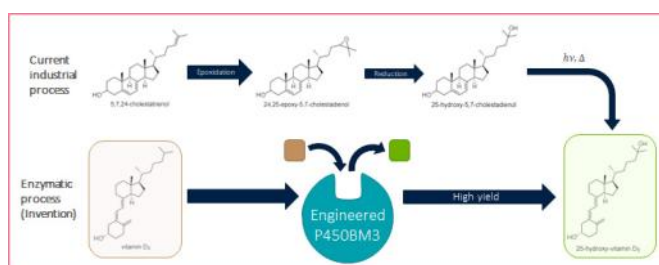


A process for enzymatic oxidation of vitamin D to a more bioavailable form for improved supplementation

A process for enzymatic oxidation of vitamin D to a more bioavailable form for improved supplementation.

Applications: Pharmaceuticals, Consumer health supplements, Cosmetics & Animal feed



Features	Benefits
An engineered cytochrome P450BM3 enzyme that has high activity (~90% conversion) and selectivity (>80%) for 25-hydroxylation of vitamin D	A high yield process compared to conventional vitamin D oxidation routes
Provides a low cost route to 25-hydroxyvitamin D due to lower complexity and higher yields	Significantly cheaper than the conventional chemical routes
Engineered P450BM3 variant has the required activity and productivity for large scale synthesis, compared to both the physiological enzyme (CYP27A1) and other bacterial enzymes (e.g. the CYP105 family)	A commercially viable enzymatic process

Features	Benefits
Versatile process that produces the 25-hydroxy form of both vitamin D2 and D3	Reduced complexity and cost of manufacture

Patented and Available for

- Co-development
- Consulting
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.

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