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CORRECTION

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Correction: Structural insights into a bacterial terpene cyclase fused with haloacid dehalogenase-like phosphatase

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Correction for 'Structural insights into a bacterial terpene cyclase fused with haloacid dehalogenase-like phosphatase' by Keisuke Fujiyama *et al.*, *Chem. Sci.*, 2025, **16**, 15310–15319, https://doi.org/10.1039/d5sc04719f.

Upon publication of the original article, the authors were made aware that the preprint by Osika *et al.* (ref. 57 in our original manuscript) had been published,[1] and is closely related to our study on drimenol synthase from *Aquimarina spongiae* (AsDMS). We hereby correct the sentence on page 15311, left column, line 20, as follows: In this study, we report the co-crystallographic analyses of AsDMS, an enzyme that converts substrate **1** into product **2**, and the biochemical characterization of site-specific variants. During the preparation of this manuscript, Osika *et al.*[1] disclosed the structure of AsDMS in complex with a non-physiological ligand. In this report, we obtained co-crystal structures of the AsDMS-**1** and AsDMS-**3** complexes. The obtained co-crystal structures of AsDMS represent the first experimentally determined physiological substrate-bound structures of a HAD-TCβ enzyme, revealing distinct substrate-binding pockets for the HAD and TCβ domains.

The co-crystal structures reported in this study involve the physiological substrate, whereas the physiological substrate-free structure of AsDMS was independently reported contemporaneously by Osika *et al.*,[1] highlighting the complementary nature of these studies. Based on ^{18}O-labelling, MESG assays, and the substrate-free crystal structure, Osika *et al.*[1] proposed a mechanism that releases Pi in a stepwise manner. In the present study, we elucidate the catalytic mechanism (Fig. 6) through co-crystal structures with the physiological substrates and comprehensive site-directed mutagenesis analyses, providing firm experimental evidence for the catalytic process.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

1 K. R. Osika, M. N. Gaynes and D. W. Christianson, *Proc. Natl. Acad. Sci. U. S. A.*, 2025, **122**(26), e2506584122.

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