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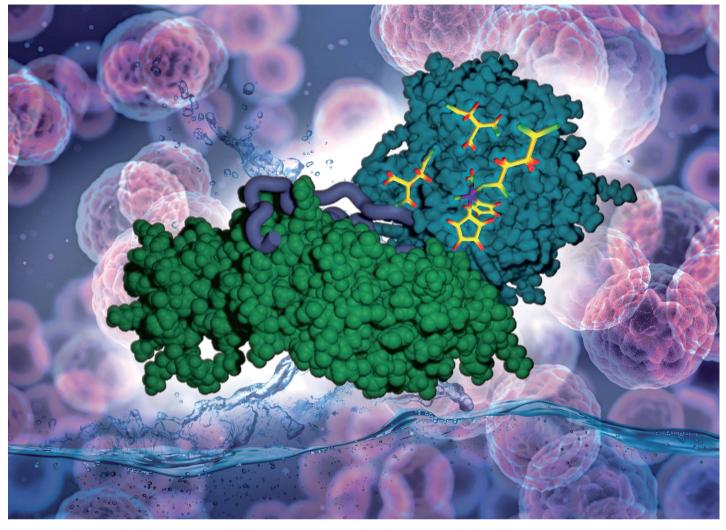
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Showcasing research from Prof. Karabencheva-Christova's laboratory, Department of Chemistry, Michigan Technological University, MI, USA.

Unusual catalytic strategy by non-heme Fe(1)/2-oxoglutarate-dependent aspartyl hydroxylase AspH

Our study illuminates the origin of the atypical catalytic strategy employed by the human non-heme Fe( $_{\rm II}$ )/2-oxoglutarate-dependent dioxygenase AspH. We emphasize the pivotal role played by a water molecule, stabilized by a second coordination sphere aspartate residue, in catalysis, replacing the conventional iron-coordinated carboxylate ligand.

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