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**Fundamental questions
Elemental answers**

THE NEXT WAVE OF ANTIMICROBIAL SHRIMP PEPTIDES



Showcasing research from Professor Rowińska-Żyrek's laboratory, Faculty of Chemistry, University of Wrocław, Poland.

Cu(II) binding to an antimicrobial shrimp peptide – a small step for structural chemistry, a big leap for medicinal applications

How can a His-rich peptide derived from shrimp become strongly antimicrobial after binding Cu(II) ions? Cu(II) binds to the central and C-terminal part of the PvHCt peptide and induces a structural change, imposing a significant bend of the peptide backbone, increasing its α -helical content and triggering the formation of ROS that contribute to the impressive antimicrobial potency of the Cu(II)-PvHCt complex. In other words, Cu(II) binding to an antimicrobial shrimp peptide may be a small step for structural chemistry, but it's a giant leap for medicinal applications!

As featured in:



See Daniela Valensin, Magdalena Rowińska-Żyrek *et al.*, *Chem. Sci.*, 2025, **16**, 3447.