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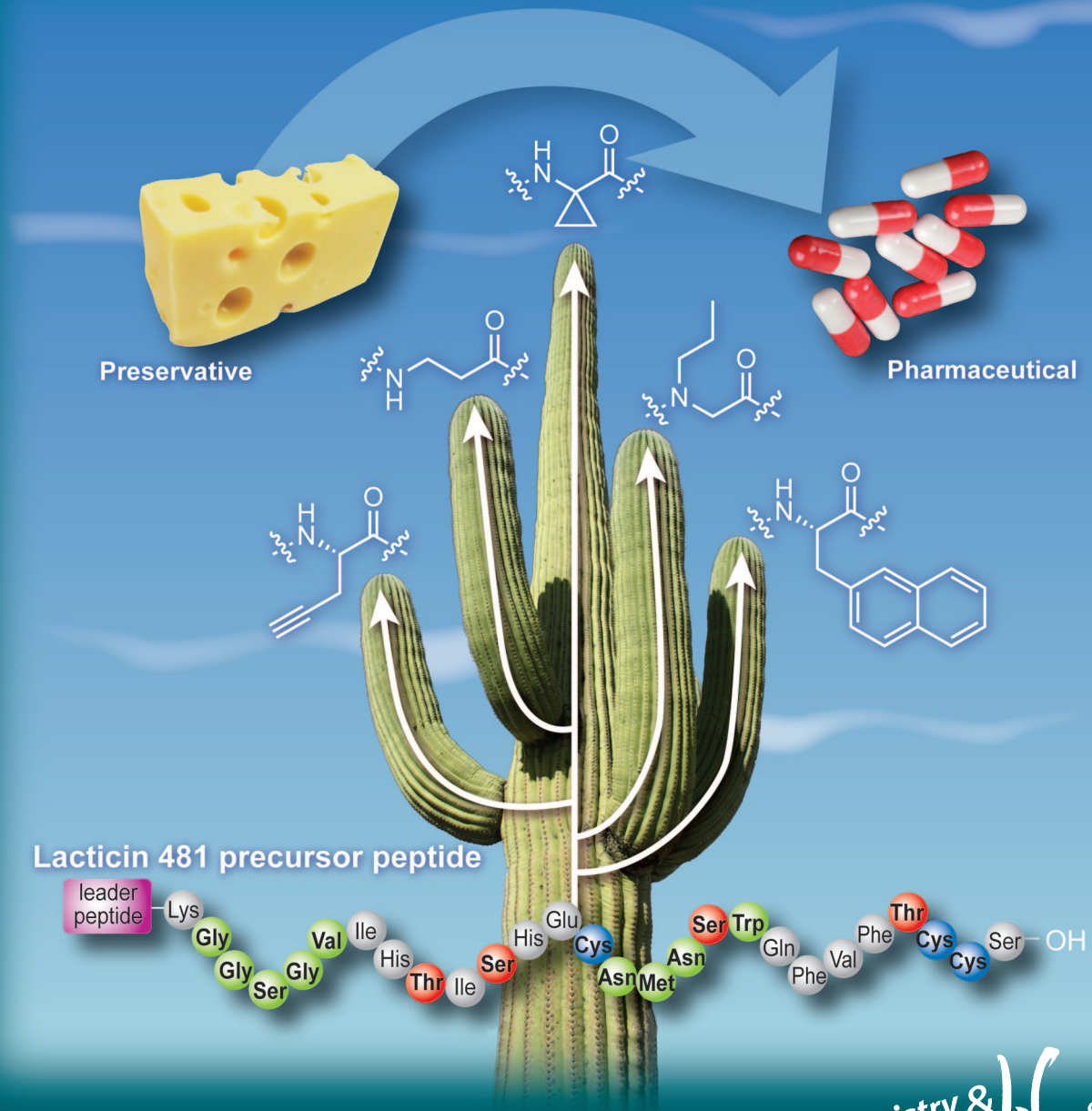

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Minireview: Sortase-Mediated Ligation (T. Nagamune)
Concept: Particle-Based Synthesis of Peptide Arrays (F. Breitling)
Viewpoint: The Active Centre of Nitrogenase (O. Kühl)

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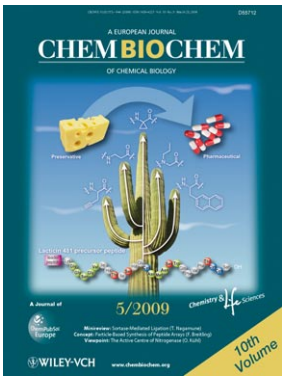
Cover Picture

Matthew R. Levengood, Christopher C. Kerwood, Champak Chatterjee, and Wilfred A. van der Donk*



The cover picture shows the forgiveness of lacticin 481 synthetase with respect to its substrate specificity. This enzyme crosslinks Ser (red) and Cys (blue) residues in its precursor peptide through thioether bonds to generate the lantibiotic lacticin 481. Lantibiotics are currently used worldwide in the food industry, in particular in dairy products. Recent years have seen a growing interest in engineering of lantibiotics for potential use as human therapeutics. Towards this goal, the residues shown in green in the precursor peptide could be replaced by a variety of non-proteinogenic amino acids, including peptoids and β-amino acids, without affecting the enzymatic activity of lacticin 481 synthetase. The tolerance of lacticin 481 synthetase holds much promise for branching into lantibiotics with increased biostability. For further details, see the article by W. van der Donk et al. on p. 911 ff.