Title:	Vibrio cholerae cytolysin: Multiple facets of the membrane interaction mechanism of a β-barrel pore-forming toxin
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Abstract:	Vibrio cholerae cytolysin (VCC) is a membrane-damaging protein toxin with potent cytolytic/cytotoxic activity against wide range of eukaryotic cells. VCC is a β-barrel pore-forming toxin (β-PFT), and it inflicts damage to the target cell membranes by forming transmembrane heptameric β-barrel pores. To exert pore-forming activity, VCC must bind to the cell membranes in an efficient manner. Efficient interaction with the cell membranes is an essential pre-requisite to trigger subsequent structural/conformational and organizational changes in the toxin molecules leading toward formation of the transmembrane oligomeric β-barrel pores. Based on the large numbers of studies investigating the mode of action of VCC, it is now evident that VCC is capable of using multiple distinct mechanisms to recognize and bind to the membrane components and cell surface molecules. In this review article, we present an overview of our current understanding regarding the membrane interaction mechanisms of VCC, and their functional implications for the pore-forming activity of the toxin.
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