



# Library Indian Institute of Science Education and Research Mohali



**DSpace@IISERMohali (/jspui/)**  
**/ Publications of IISER Mohali (/jspui/handle/123456789/4)**  
**/ Research Articles (/jspui/handle/123456789/9)**

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/3294>

Title:	Sequence Diversity in the Pore-Forming Motifs of the Membrane-Damaging Protein Toxins
Authors:	Mondal, A.K. (/jspui/browse?type=author&value=Mondal%2C+A.K.) Verma, Pratima (/jspui/browse?type=author&value=Verma%2C+Pratima) Lata, K. (/jspui/browse?type=author&value=Lata%2C+K.) Singh, Mahender (/jspui/browse?type=author&value=Singh%2C+Mahender) Chatterjee, Shamaita (/jspui/browse?type=author&value=Chatterjee%2C+Shamaita) Chattopadhyay, K. (/jspui/browse?type=author&value=Chattopadhyay%2C+K.)
Keywords:	Alpha-PFT Beta-PFT Membranes Pore-forming protein
Issue Date:	2020
Publisher:	Springer Nature.
Citation:	Journal of Membrane Biology, 253(5) pp. 469-478.
Abstract:	Abstract: Pore-forming proteins/toxins (PFPs/PFTs) are the distinct class of membrane-damaging proteins. They act by forming oligomeric pores in the plasma membranes. PFTs and PFPs from diverse organisms share a common mechanism of action, in which the designated pore-forming motifs of the membrane-bound protein molecules insert into the membrane lipid bilayer to create the water-filled pores. One common characteristic of these pore-forming motifs is that they are amphipathic in nature. In general, the hydrophobic sidechains of the pore-forming motifs face toward the hydrophobic core of the membranes, while the hydrophilic residues create the lining of the water-filled pore lumen. Interestingly, pore-forming motifs of the distinct subclass of PFPs/PFTs share very little sequence similarity with each other. Therefore, the common guiding principle that governs the sequence-to-structure paradigm in the mechanism of action of these PFPs/PFTs still remains an enigma. In this article, we discuss this notion using the examples of diverse groups of membrane-damaging PFPs/PFTs.
URI:	<a href="https://pubmed.ncbi.nlm.nih.gov/32955633/">https://pubmed.ncbi.nlm.nih.gov/32955633/</a> ( <a href="https://pubmed.ncbi.nlm.nih.gov/32955633/">https://pubmed.ncbi.nlm.nih.gov/32955633/</a> ) <a href="http://hdl.handle.net/123456789/3294">http://hdl.handle.net/123456789/3294</a> ( <a href="http://hdl.handle.net/123456789/3294">http://hdl.handle.net/123456789/3294</a> )
Appears in	Research Articles (/jspui/handle/123456789/9)
Collections:	

Files in This Item:

File	Description	Size	Format
Need to add pdf.odt (/jspui/bitstream/123456789/3294/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text

[View/Open \(/jspui/bitstream/123456789/3294/1/Need%20to%20add%20pdf.odt\)](#)

[Show full item record \(/jspui/handle/123456789/3294?mode=full\)](#)

[Statistics \(/jspui/handle/123456789/3294/statistics\)](#)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.