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Title:	Membrane Dynamics and Remodelling in Response to the Action of the Membrane-Damaging Pore-Forming Toxins
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Keywords:	Membrane Dynamics and Remodelling Membrane-Damaging Pore-Forming Toxins
Issue Date:	2022
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Citation:	The Journal of Membrane Biology, 255(2-3), 161–173.
Abstract:	Pore-forming protein toxins (PFTs) represent a diverse class of membrane-damaging proteins that are produced by a wide variety of organisms. PFT-mediated membrane perforation is largely governed by the chemical composition and the physical properties of the plasma membranes. The interaction between the PFTs with the target membranes is critical for the initiation of the pore-formation process, and can lead to discrete membrane reorganization events that further aids in the process of pore-formation. Punching holes on the plasma membranes by the PFTs interferes with the cellular homeostasis by disrupting the ion-balance inside the cells that in turn can turn on multiple signalling cascades required to restore membrane integrity and cellular homeostasis. In this review, we discuss the physicochemical attributes of the plasma membranes associated with the pore-formation processes by the PFTs, and the subsequent membrane remodelling events that may start off the membrane-repair mechanisms.
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