

## I.13 Remodeling and destruction of biological membranes

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Living cells have developed elaborate machineries to create, shape, and maintain lipid membranes. Conversely, pathogens have developed equally elaborate machineries to attack, invade, and destroy the lipid membranes of their hosts. In my talk I will show how molecular simulations give us a detailed understanding of the physico-chemical principles underlying key membrane remodeling and destruction processes in normal cellular functions and in disease. I will concentrate on the action of the membrane receptor FAM134B in the autophagy of the ER and on membrane perforation by bacterial cytolysins.