

## Cracking the Microbial Cell Wall

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### Dear Editor

The Sponge like Protocol was recently published by Amara et al. (2013) [1]. The protocol describes a new method for bacterial evacuation from their cytoplasmic contents without deforming their 3D structure or their surface antigens [1,2]. The protocol was originally optimized by Plackett-Burman design [1,3]. It based on randomising both of the +1 which was the minimum inhibition concentration MIC and the minimum growth concentration MGC (-1) of compounds able to induce pores in bacterial cell walls [1,3]. The used chemical compounds are SDS, NaOH, H<sub>2</sub>O<sub>2</sub>, CaCO<sub>3</sub> and the NaCl and the Ethanol were used during the evacuation processes. By determining each of the MIC and MGC and running either the full Plackett-Burman twelve experimental design as in the original protocol or running the best two experiments which giving the best results as in the reduced protocol, that guarantee full evacuation with nearly no effect on the 3D or the surface antigens [4,2].

Using such simple protocol with the virus new castle and with the Eukaryotic *Saccharomyces cerevisiae* the protocol success to turn them to ghosts [5,6,7]. The same concept but by using the MIA and MGA of the lysozyme and Proteinase K with *Bacillus stearothermophilus* it is successfully turned to ghost [8]. After examining the protocol with several microbial strains from each of the prokaryotic and the eukaryotic as well as the viruses and the spore former bacteria one could say that the microbial cell wall has been cracked [9-11]. Such protocol open many opportunities in preparing vaccines from microbes might show some hardness in the past. Such protocol is simple reliable in expensive but one could not say in house while microbes need some care particularly the pathogens.

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