1. Stress combative mechanisms play a role in bacterial infections, which can be tested experimentally by gene knockout experiments to establish which genes are essential for successful infection of experimental model systems. Comparison of these results with those from gene expression studies allows unequivocal identification of stress response mechanisms required in successful pathogens. These approaches have the limitation that the experimental model systems may not adequately reflect the processes which take place in natural infection.

2. Genes which are essential for successful infection of experimental model systems can be identified experimentally by gene knockout experiments to identify stress combative mechanisms which play a role in bacterial infections. Unequivocal identification of stress response mechanisms required in successful pathogens can be obtained by comparison of these results with those from gene expression studies. The experimental model systems may not adequately reflect the processes which take place in natural infection and is a limitation of these approaches.

3. A combination of gene knockout experiments and gene expression studies can be used to unequivocally identify stress combative genes required for infection of model systems but may not reflect those required in natural infection.