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Título	A protein chimera including PspA in fusion with PotD is protective against invasive pneumococcal infection and reduces nasopharyngeal colonization in mice
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Resumo	Despite the success of the available polysaccharide-based vaccines against <i>Streptococcus pneumoniae</i> in preventing invasive diseases, this bacterium remains a major cause of death in many parts of the world. New vaccine strategies are needed in order to increase protection. Thus, the utilization of <u>fusion proteins</u> is being investigated as an alternative to the current formulations. In the present work, we demonstrate that a <u>chimeric protein</u> , composed of PspA and PotD in fusion is able to maintain the protective characteristics of both parental proteins, providing protection against systemic infection while reducing nasal colonization. The hybrid was not able to improve the response against invasive disease elicited by PspA alone, but the inclusion of PotD was able to reduce colonization, an effect never observed using subcutaneous immunization with PspA. The mechanisms underlying the protective efficacy of the rPspA-PotD hybrid protein were investigated, revealing the production of antibodies with an increased binding capacity to pneumococcal strains of diverse <u>serotypes</u> and genetic backgrounds, enhanced opsonophagocytosis, and secretion of <u>IL-17</u> by <u>splenocytes</u> . These findings reinforce the use of chimeric proteins based on <u>surface antigens</u> as an effective strategy against <u>pneumococcal infections</u> .
Fomento	