

Production de Protéines Membranaires à Usage Thérapeutique

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One of the major challenges in human therapy is to develop delivery systems which are convenient and effective for tackling problems in disease treatments. The use of recombinant proteoliposomes containing therapeutic membrane proteins is a recently developed technology in our laboratory, allowing biologically active proteins to penetrate across the plasma membrane of eukaryotic cells. Cell-free protein synthesis emerged as one of the most efficient system for membrane protein expression. We have successfully expressed in mg amounts, bio-active proteoliposomes containing membrane proteins for different therapeutic uses such as vaccines against infectious diseases, pro-apoptotic membrane proteins for treating tumours, innovative biomimetic artificial membranes and the production of monoclonal antibodies.