

## **Lipid oxidation in cellular delivery applications**

Jean-Philippe Pellois

Texas A&M University

Department of Biochemistry and Biophysics, Department of Chemistry

Delivery agents cross cellular membranes to penetrate cells. Membrane translocation may take place on the surface of the cell or, following endocytic uptake, within the endosomal pathway. Notably, lipid oxidation can modulate these various translocation processes. In particular, I will describe how membrane oxidation modulates the extent by which cell-penetrating peptides traverse the plasma membrane of live human cells. I will also describe how lipid oxidation can be exploited to mediate the selective permeation of endosomal membranes.