Vitamin E transport, membrane incorporation and cell metabolism: Is α-tocopherol in lipid rafts an oar in the lifeboat? S. Lemaire-Ewing, C. Desrumaux, D. Neel1, and L. Lagrost, *Mol. Nutr. Food Res.*, **54**, 631–640 (2010). (Review)

Vitamin E is composed of closely related compounds, including tocopherols and tocotrienols. Studies of the last decade provide strong support for a specific role of α-tocopherol in cell signalling and the regulation of gene expression. It produces significant effects on inflammation, cell proliferation and apoptosis that are not shared by other vitamin E isomers with similar antioxidant properties. The different behaviours of vitamin E isomers might relate, at least in part, to the specific effects they exert at the plasma membrane. α-Tocopherol is not randomly distributed throughout the phospholipid bilayer of biological membranes, and as compared with other isomers, it shows a propensity to associate with lipid rafts. Distinct aspects of vitamin E transport and metabolism is discussed with emphasis on the interaction between α-tocopherol and lipid rafts and the consequences of these interactions on cell metabolism.