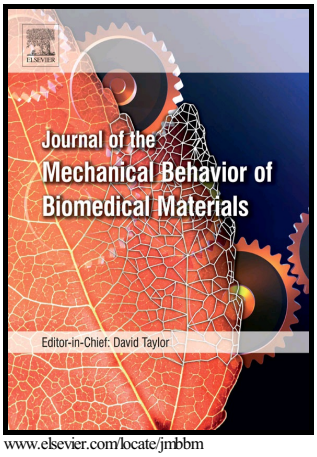

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"Force-from-lipids" gating of mechanosensitive channels modulated by PUFAs

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ABSTRACT

The level of fatty acid saturation in phospholipids is a crucial determinant of the biophysical properties of the lipid bilayer. Integral membrane proteins are sensitive to changes of their bilayer environment such that their activities and localization can be profoundly affected. When incorporated into phospholipids of mammalian cells, poly-unsaturated fatty acids (PUFAs) determine the mechanical properties of the bilayer thereby affecting several membrane-associated functions such as endo- and exo-cytosis and ion channel/membrane receptor signalling cascades. In order to understand how membrane tension is propagated through poly-

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