

## **Studies on Molecular Mechanisms of Protective Effects of Oligosaccharides on Skins and Cells in the Dry State**

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The molecular mechanisms of protective effects of oligosaccharides, such as trehalose, maltose, and sucrose, on the cells under highly dehydrated conditions, have been studied by using model phospholipid membrane as well as yeast cells. From the thermal and NMR analysis, and molecular dynamics simulation, anomalously high hydration ability of trehalose was elucidated.