

Structure-function Studies of Nutrient Transporters

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ABSTRACT

Cells within the human body have developed specialized transport mechanisms to take up vital and beneficial nutrient from foods etc. Some of these mechanisms rely on proteins embedded within the cell membrane, protein that are able to recognize nutrient molecule specifically and transport them in to the cell. Some of these proteins happen to interact with drugs for example by facilitating drug uptake, and it is observed that several drugs in fact rely on these proteins for absorptions in the human body. We investigate how transport proteins interact with drug molecules and the protein families that we are studying is particularly important since it interacts with a very large number of different drugs that if administered together lead to non-optimal drug-drug interactions.

Keywords: secondary active transport, drug interaction, 3D structure, transporter function
