

BIOCHEMISTRY

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Lipid droplets (LDs), ~~alias also known as~~ adiposomes or fat ~~bodybodies~~, ~~has been~~ ~~are~~ found to ~~have-be~~ ubiquitous ~~presence~~ in lipid-overloaded cells ~~in species~~ from ~~aeross~~ yeast to mammals. ~~Since their earliest description in the 19th century~~ ~~For a long time~~, LDs ~~was-were~~ thought ~~to be~~ simply ~~as an~~ inactive lipid reservoirs ~~since~~ ~~it's earliest description in 19th century~~. ~~The D~~ discovery of perilipin, an LD-associated protein that coats LDs in adipocytes, ~~has prompted~~ ~~makes~~ researchers to challenge ~~the understanding of LD as lipid storage~~ ~~this view~~. LDs ~~is-are~~ now recognized as ~~a~~ dynamic organelles ~~comprised~~ ~~composed~~ of ~~monolayer~~ ~~a~~ phospholipid ~~monolayer~~, ~~with an embedding~~ ~~embedded~~ ~~of with~~ ~~a lot of~~ ~~many~~ proteins without ~~aeross-trans~~ membrane ~~--~~ spanning domains, and ~~a~~ hydrophobic core that contains triacylglycerols (TGs) and sterol esters. TGs are ~~the key~~ neutral lipids ~~s~~ required for LDs formation in adipocytes. ~~The D~~ deletion of genes encoding enzymes responsible for neutral lipid synthesis ~~eliminate~~ ~~s~~ LDs formation.