BIOCHEMISTRY

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Lipid droplets (LDs), ~~alias~~ also known as adiposomes or fat ~~body~~bodies, ~~has been~~ are found to ~~have~~ be ubiquitous ~~presence~~ in lipid-overloaded cells in species from ~~across~~ 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 ~~across~~ transmembrane--spanning domains, and a hydrophobic core that contains triacylglycerols (TGs) and sterol esters. TGs are ~~the key~~ neutral lipids required for LD~~s~~ formation in adipocytes. The ~~D~~deletion of genes encoding enzymes responsible for neutral lipid synthesis eliminate~~s~~d LD~~s~~ formation.