cell lines with disease-related mutations in *DYSF*, *CAV3,* and *ANO5* have been analyzed in this study. Cell lines were characterized by immunofluorescence labelling and western blot analysis. To investigate the impact of mutations in genes causing LGMD on the morphology of the sarcolemma, transmission electron microscopy (TEM) analysis of differentiated myotubes was done. Endocytic structures at the plasma membrane such as caveolae, subsarcolemmal vesicles, and clathrin-coated pits were quantified. To explore the functional association of dysferlin and cav-3, investigations on membrane raftn e4exp.t 8(r)-3(a)137.220ormal and L3(r)-2B myotubes were done biochemically by purification of detergent-resistant me3(r)-3(a)branes (aRMs). In order to reveal new dysferlin functions an immunopurification assay was established. Intracellular dysferlin-containing vesicles were isolated by subcellular fractionation followed by immunopurification (aP). Characterization of these vesicles was done137.220n ultrastructural level by TEM analysis and proteETrl85 ultrby TEreveal n es408.19xyaphyBDC