

SUPPLEMENTARY MATERIAL

Table S1. Analysis of MR-lamin A colocalization determined as Pearson’s Correlation Coefficient in HEK293 cells co-expressing GFP-MR and FLAG-lamin A. Thirty nuclei per sample were analyzed in triplicate experiments.

Pearson's Coefficient	mean	SD
LA-WT	0,80	0,09
LA-C661M	0,69	0,19
LA-R482Q	0,81	0,10
LA-R647R	0,86	0,07

Figure S1

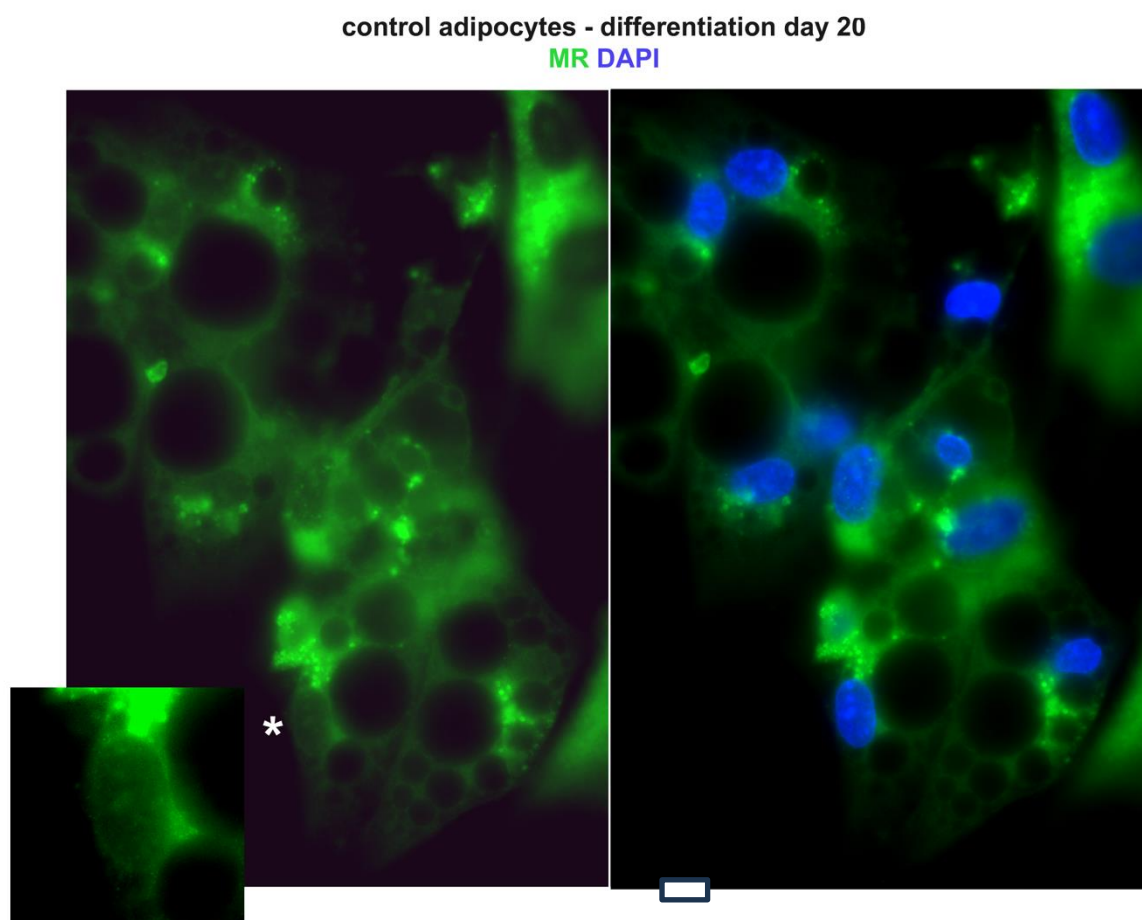


Figure S1. MR staining in control adipocytes. MR was labeled by an anti-MR monoclonal antibody. Nuclei are counterstained with DAPI. Lipid vesicles appear Bar, 10 mm. The white asterisk indicates the nucleus shown in the inset.

Figure S2

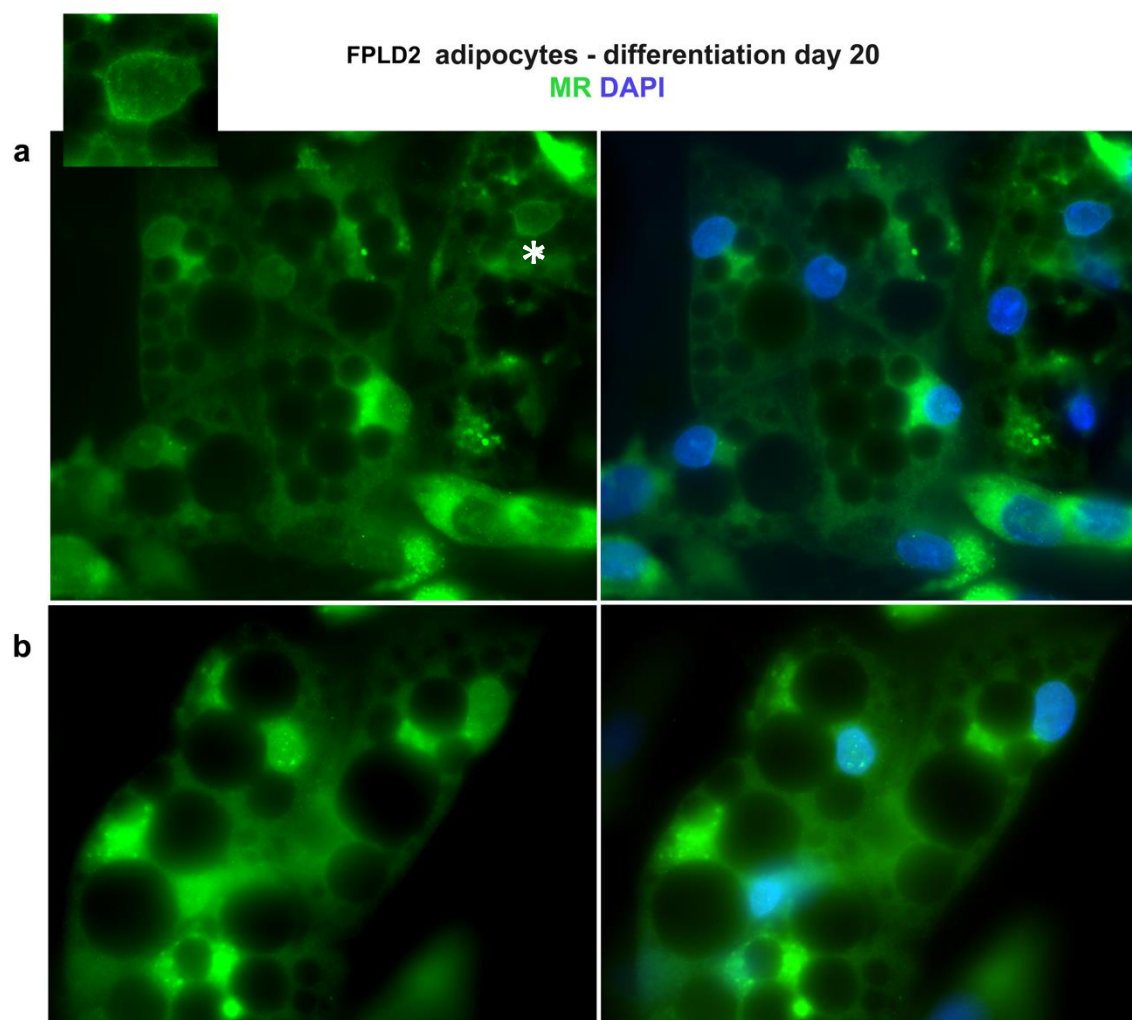


Figure S2. MR staining in FPLD2 adipocytes. (a) Adipocytes obtained from a patient carrying the R482Q-LMNA mutation. (b) Adipocytes obtained from a patient carrying the E202K-LMNA mutation, Bar, 10 mm. The white asterisk indicates the nucleus shown in the inset.

Figure S3

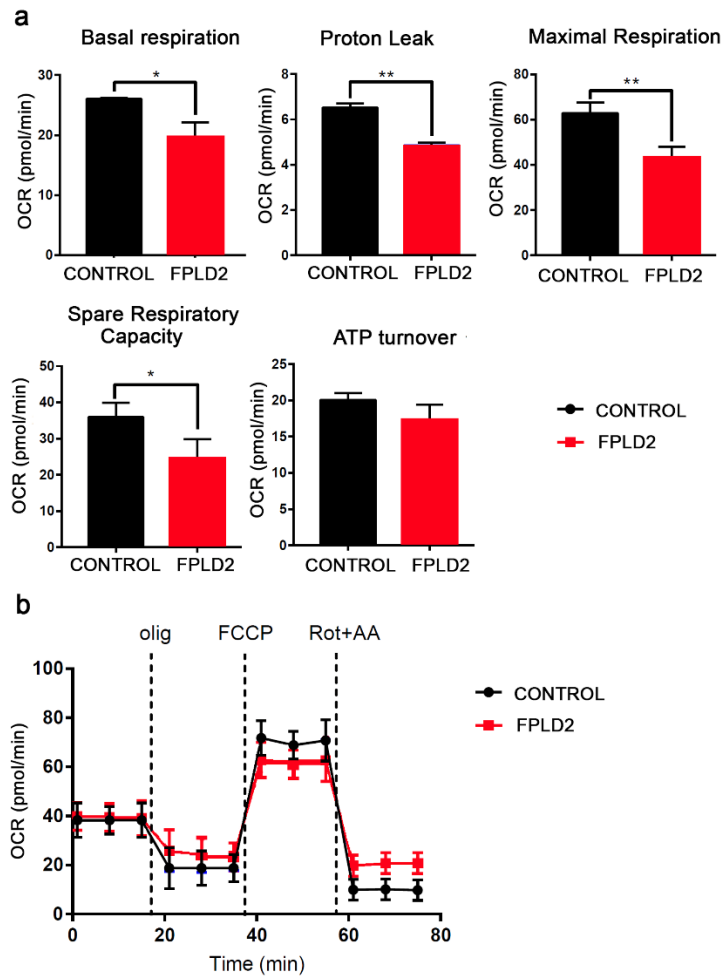


Figure S3. Bioenergetic metabolism in control and FPLD2 brown adipocytes. (a) Mitochondrial parameters (basal respiration, Proton leak, maximal respiration, spare respiratory capacity and ATP production) of control (CONTROL) and FPLD2 brown adipocytes are reported in the graphs. (b) The mitochondrial respiration profile in control (CONTROL) and FPLD2 brown adipocytes was evaluated as OCR (Oxygen Consumption Rate) under basal respiration conditions. Statistically significant differences are indicated (* $p < 0.05$; ** $p < 0.01$).