## **Supplementary Materials**

Supplementary File 1: A comprehensive set of human adipocyte images taken on Day 4, 7, 10, 14 and 21 of adipogenesis with phase contrast microscopy.

Supplementary File 2: 3D widefield stacks of anti-perilipin stained human SGBS adipocytes.

Supplementary File 3: LipiD-QuanT installer for a standalone application and LipiD-QuanT installer instructions for seamless operation of the software.

Supplementary File 4: The LipiD-QuanT script to quantify LDs in phase contrast images.

Supplementary File 5: The .R script for graphing kernel density distributions of LD sizes.