

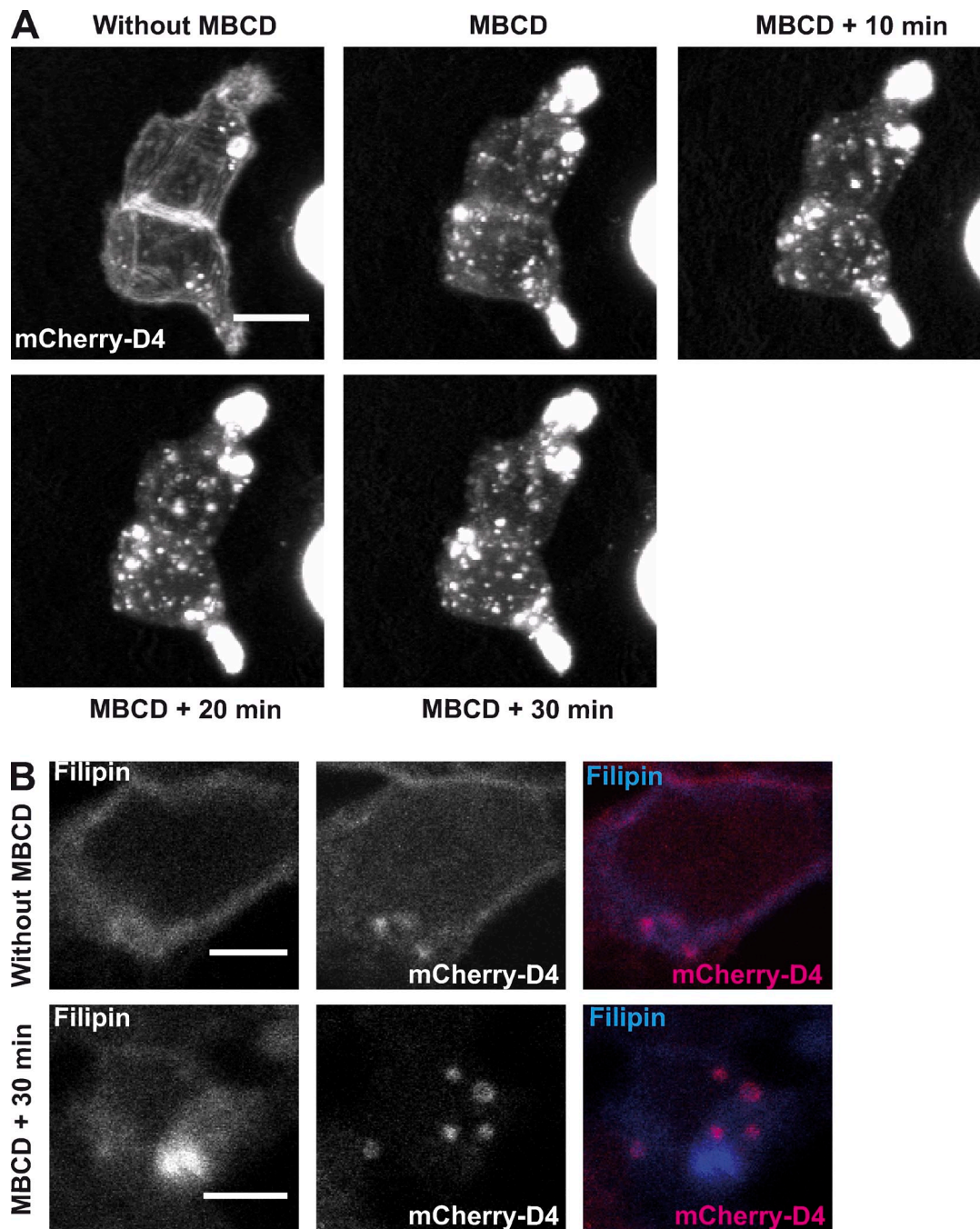
Brachet et al., <http://www.jcb.org/cgi/content/full/jcb.201407122/DC1>

Figure S1. **Cholesterol reduction leads to mCherry-D4 relocalization and accumulation in aggregates in HEK cells.** (A) Representative examples of mCherry-D4-expressing HEK cells before and during MBCD application for different times, as indicated. Bar, 10  $\mu$ m. (B) Representative example of mCherry-D4-expressing HEK cells, without (top) or after MBCD treatment for cholesterol extraction (bottom). Cells were then fixed and processed for filipin staining and described in the Materials and methods. Bar, 5  $\mu$ m.

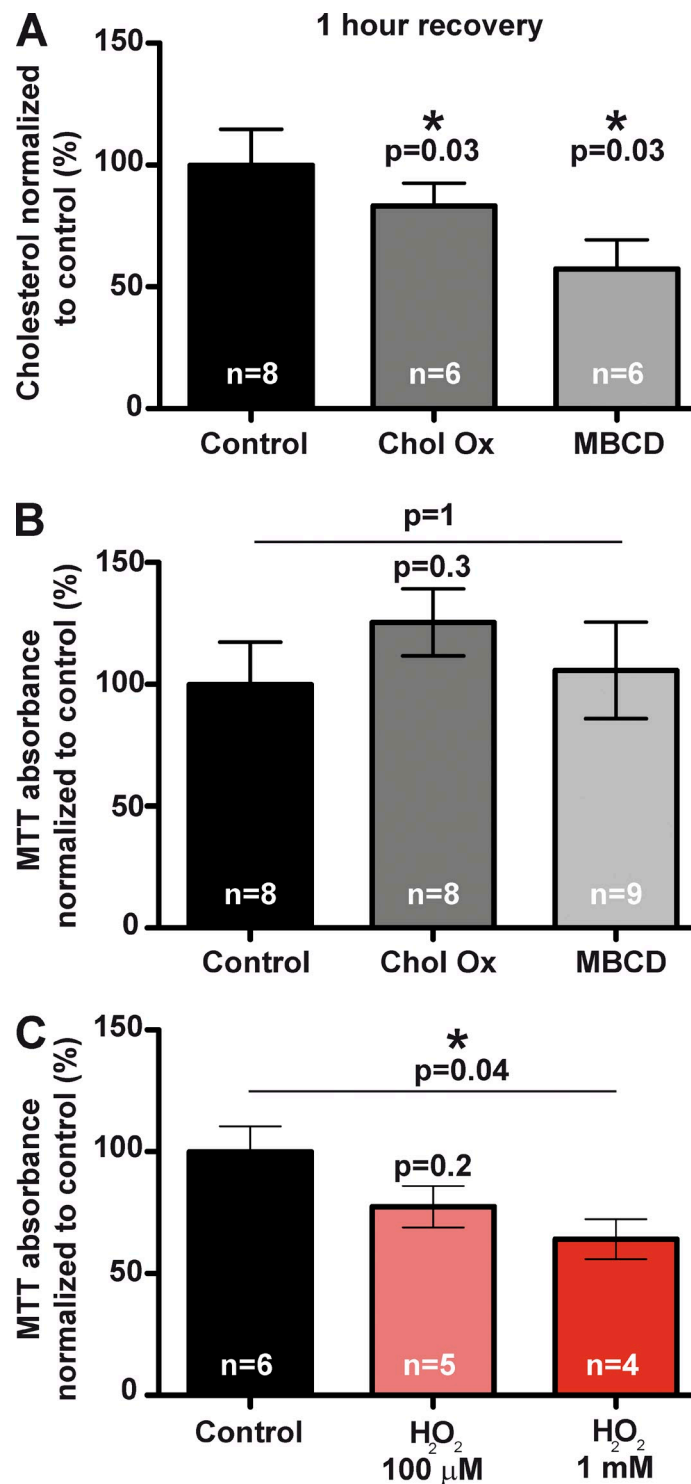


Figure S2. **Sustained reduction of cholesterol and cell viability.** (A) Quantification of cholesterol content from whole hippocampal slices after treatment with cholesterol oxidase (Chol Ox) or methyl- $\beta$ -cyclodextrin (MBCD) for 30 min and then recovered for 1 h in ACSF. Values are normalized to untreated (control) slices. *n* represents number of independent experiments. Statistical significance is calculated according to the Wilcoxon test for slices treated in parallel. (B and C) Quantification of cell viability according to the MTT assay (see Materials and methods), from hippocampal slices treated for 30 min with Chol Ox and MBCD (B) or with the indicated concentrations of H<sub>2</sub>O<sub>2</sub> (C). Values are normalized to untreated (control) slices. *n* represents number of independent experiments. Statistical significance is calculated according to the Wilcoxon test for slices treated in parallel. Error bars show means  $\pm$  SEM.

**A Word file is also included online that shows the source code for the analysis of the electrophysiological data.**