



Kneissig et al

## Figure 2 - Figure Supplement 1

### Characteristics of micronuclei. (a) Cells after fusion with isolated

MNs were immunolabelled with anti-EdU (red) to detect DNA replication. They were categorized in four groups: non-replicating DNA in primary nuclei (PN) and MN (-/-); replicating DNA in both the PN and MN (+/+); replicating DNA in PN and non-replicating DNA in MN (+/-); non-replicating DNA in PN and replicating DNA in MN (-/+). Representative images of each category were chosen. MNs are marked with arrowheads. DNA was stained with DAPI and Sytox green. RPE1 cells 20 h after fusion were quantified. Total n: 78. Scale bar: 10  $\mu\text{m}$ . (b) Mean DAPI intensities in TUNEL positive (+) and negative (-) MN. Three independent experiments were performed. N = 280. T-test;  $P = 0.0001$ . (c) Mean DAPI intensities in MN with NLS and CLS signals and in intact MN. Three experiments, N = 62, T-test; \*\*\*\* $P < 0.0001$ . (d) Distribution of lamin B1 positive MN before and after micronuclei isolation. Plots show mean  $\pm$  s.e.m. of two (before isolation) and one (after isolation) independent experiments. Total N: before = 168; after = 122 MNs. (e) The mean diameter of MN after colchicine treatment quantified in lamin B positive (+) and negative (-) MN visualized with either no (0), 1, 2, 3 or 4 or more (4+) centromeres, three independent experiments. N > 170 MN. (f)  $\gamma$ -H2A.x positive MN during a time course of cytochalasin B treatment, without (blue) and with centrifugation (grey). (g) Lamin B1 positive and negative MN were visualized with their diameter ( $\mu\text{m}$ ) and grouped depending on cytosolic incorporation and DNA damage presence ( $\gamma$ -H2A.x positive in blue and  $\gamma$ -H2A.x negative in grey). Total N: 295 MN. Plots show mean  $\pm$  s.e.m. of three independent experiments.