Laporte et al., http://www.jcb.org/cgi/content/full/jcb.201306075/DC1

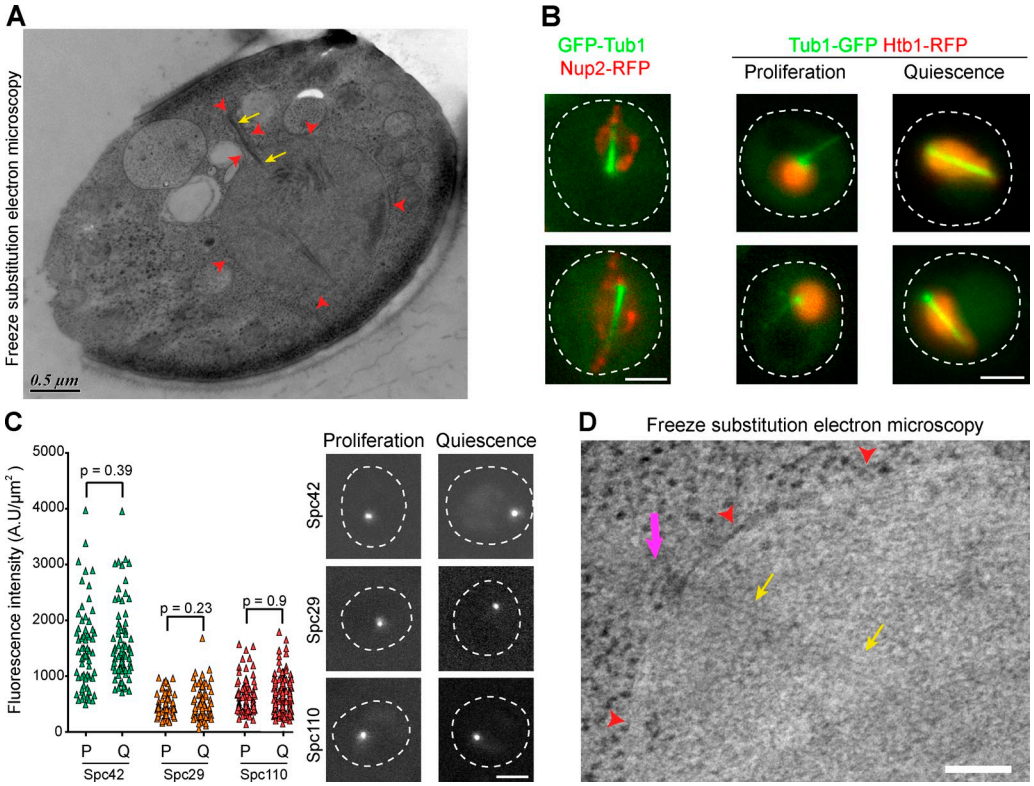

Figure S1. **The nMT array emanates from an unduplicated SPB and eventually deforms the nucleus.** (A) Nuclear membrane deformation induced by nMT arrays in quiescent cells observed by EM. Yellow arrows, MT; red arrowheads, nuclear membrane. Bar, 500 nm. (B) Nuclear membrane deformation induced by nMT array in quiescent cells expressing GFP-Tub1 and Nup2-RFP or Tub1-GFP and Htb1-RFP. Corresponding proliferating cells in G1 are shown for comparison. Bar, 2 µm. (C) Fluorescence quantification of various SPB-GFP components in proliferating G1 cells and in 3-d-old quiescent cells ($63 > n > 102$; two experiments). "p" indicates that no significant differences were detected by Student's *t* test. Bar, 2 µm. (D) nMT array visualized in WT cells by EM. Yellow arrows, MTs; red arrowheads, nuclear membrane; pink arrow, SPB. Bar, 100 nm.

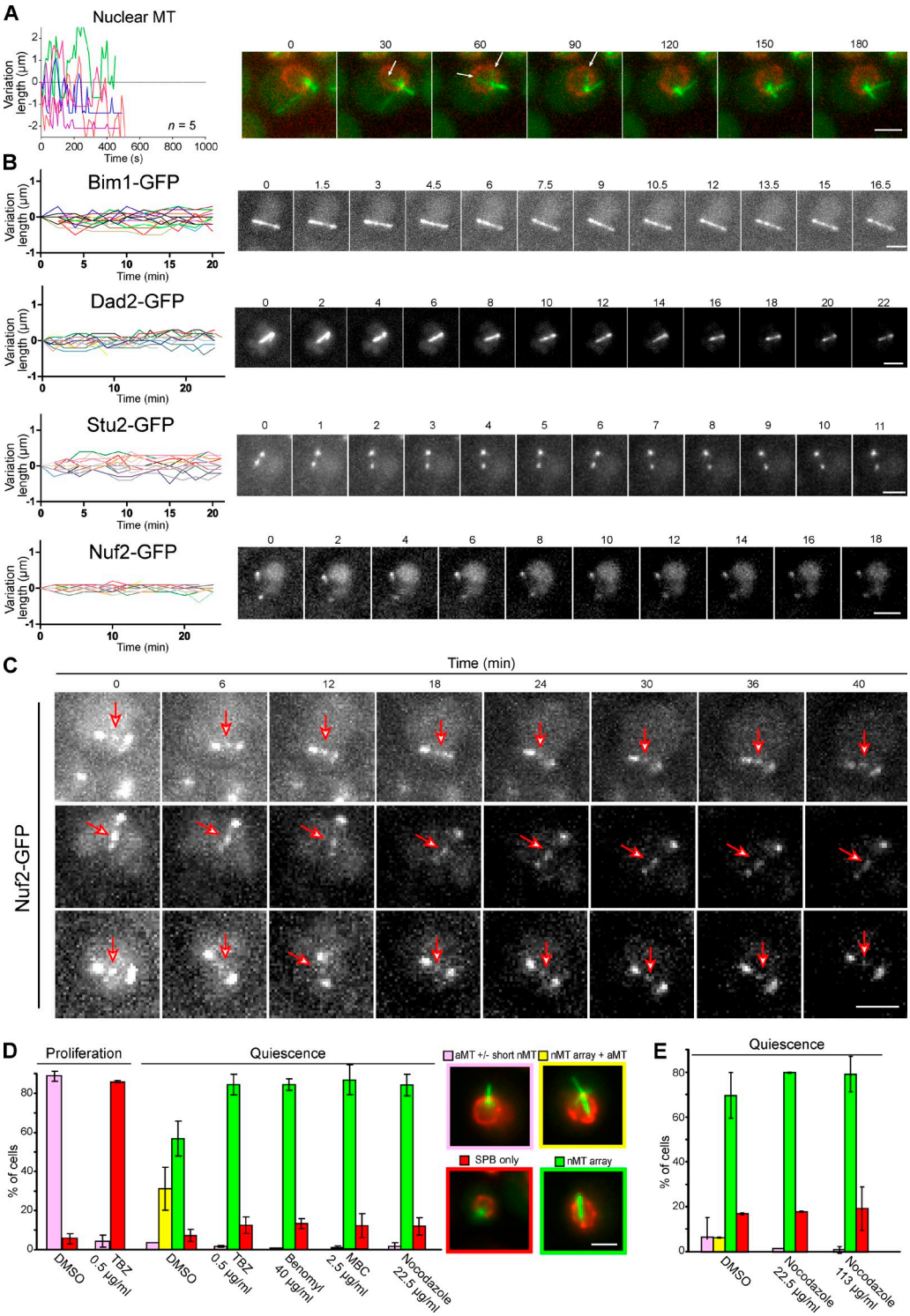

Figure S2. **The nMT array contains highly stable MTs.** (A) Variation of nuclear MT length in function of time (second) in proliferating cells. Cells express GFP-Tub1 (green) and Nup2-RFP (red). Bars, 2 µm. N = 1, *n* is indicated. (B) Variation of the nMT array length in function of time measured for 4-d-old Bim1-GFP–expressing cells (*n* = 16), for 6-d-old Dad2-GFP–expressing cells (*n* = 17), for 4-d-old Stu2-GFP–expressing cells (*n* = 17), and 6-d-old Nuf2-GFP–expressing cells (*n* = 17). Examples of corresponding time lapse are shown. Time is in minutes (two experiments). Bar, 2 µm. (C) Nuf2-GFP dots detected along nMT array (arrow) are immobile. Several time lapse images of 4-d-old cells are shown. Time is in minutes. Bar, 2 µm. (D) MT organizations in proliferating G1 cells and 4-d-old quiescent cells before and after a 90-min treatment with indicated drugs. Bar, 2 µm. (E) MT organizations in 5-d-old quiescent cells before and after a 90-min treatment with increasing concentrations of nocodazole.

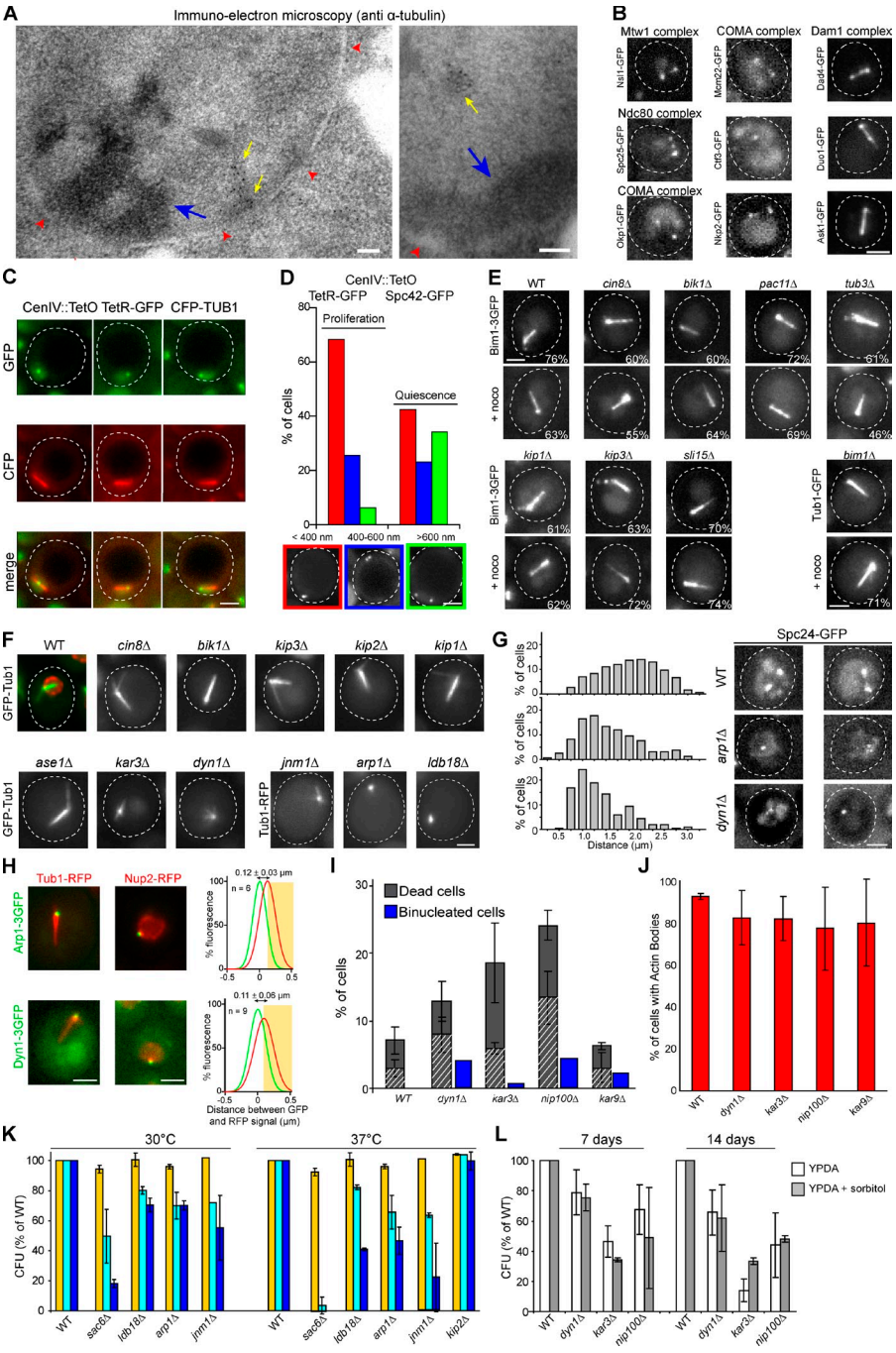

Figure S3. **The nMT array reorganizes the nucleus and is required for cell viability in quiescence.** (A) Relocalization of the nucleolus in quiescent cells observed by immuno-EM. The electron-dense zone is the nucleolus (blue arrow); yellow arrows, MTs; red arrowheads, nuclear membrane. Bar, 100 nm. (B) Localization of various kinetochore proteins in 4-d-old quiescent cells. (C) Representative quiescent cells (4 d) for which TetO repeated sequences were integrated next to the chromosome IV centromere and expressing TetR-GFP (green) and CFP-Tub1 (red). (D) Distances between DNA proximal to chromosome IV centromere and the SBP (Spc42-RFP). Distances were measured in proliferating G1 cells and in 3-d-old quiescent cells ($n > 200$ from a single experiment). (E) Images of MAP deletion mutants expressing Bim1-3GFP grown for 4 d in YPDA before (top) or after 1 h nocodazole treatment (22.5 µg/µL; bottom). (F) Images of MAP deletion mutants expressing GFP-Tub1 or Tub1-RFP grown for 4 d in YPDA. Wild-type cell expressing GFP-Tub1 and Nup2-RFP is shown as a control. (G) In the absence of nMT array, kinetochores localize at SPB proximity. The distribution of the distances measured between the SPB and Spc24-GFP is shown (two experiments; for WT, $n = 301$; *arp1Δ*, $n = 218$; and *dyn1Δ*, $n = 202$). Corresponding images are shown. (H) Dynein and dynactin complexes localize on the SPB cytoplasmic side. Quiescent cells coexpressing Arp1-3GFP or Dyn1-3YFP and Tub1-RFP or Nup2-RFP are shown. Left panels are average line scan evaluating the position of Arp1-3GFP and Dyn1-3YFP (green line) toward the nuclear membrane (Nup2-RFP, red line) in quiescent cells (4 d) obtained using the indicated number of cells (n) from a single experiment. The orange portion schematizes the nucleus. (I) Percentage of dead cells (gray bar) and bi-nucleated cells (blue bars) scored using methylene blue and Hoechst staining, respectively, after 7 d of culture. Dashed bars indicate budded cells. (J) Percentage of cells with actin bodies scored using phalloidin staining after 7 d of culture. (K) Mutants without nMT array have a reduced viability in quiescence. Colony-forming unit ability measured for cells grown 2 (yellow), 7 (light blue), or 14 d (dark blue) at 30 or 37°C. Strains that assemble an nMT array in quiescence (WT and *kip2Δ*) and a *sac6Δ* deletion strain that is known to have a drastically reduced viability in quiescence (Sagot et al., 2006) were used as controls. (L) Sorbitol has no effect on cell survivability in quiescence. Cells were grown 7 or 14 d in YPDA without (white bars) or with 1 M sorbitol (gray bars) at 30°C, and their capacity to form a colony was scored. In K and L, percentages are given using wild-type cells as reference. Bars: (B–H) 2 µm.

Table S1 is provided as a Microsoft Excel file.

Reference

Sagot, I., B. Pinson, B. Salin, and B. Daignan-Fornier. 2006. Actin bodies in yeast quiescent cells: an immediately available actin reserve? *Mol. Biol. Cell*. 17:4645–4655. http://dx.doi.org/10.1091/mbc.E06-04-0282