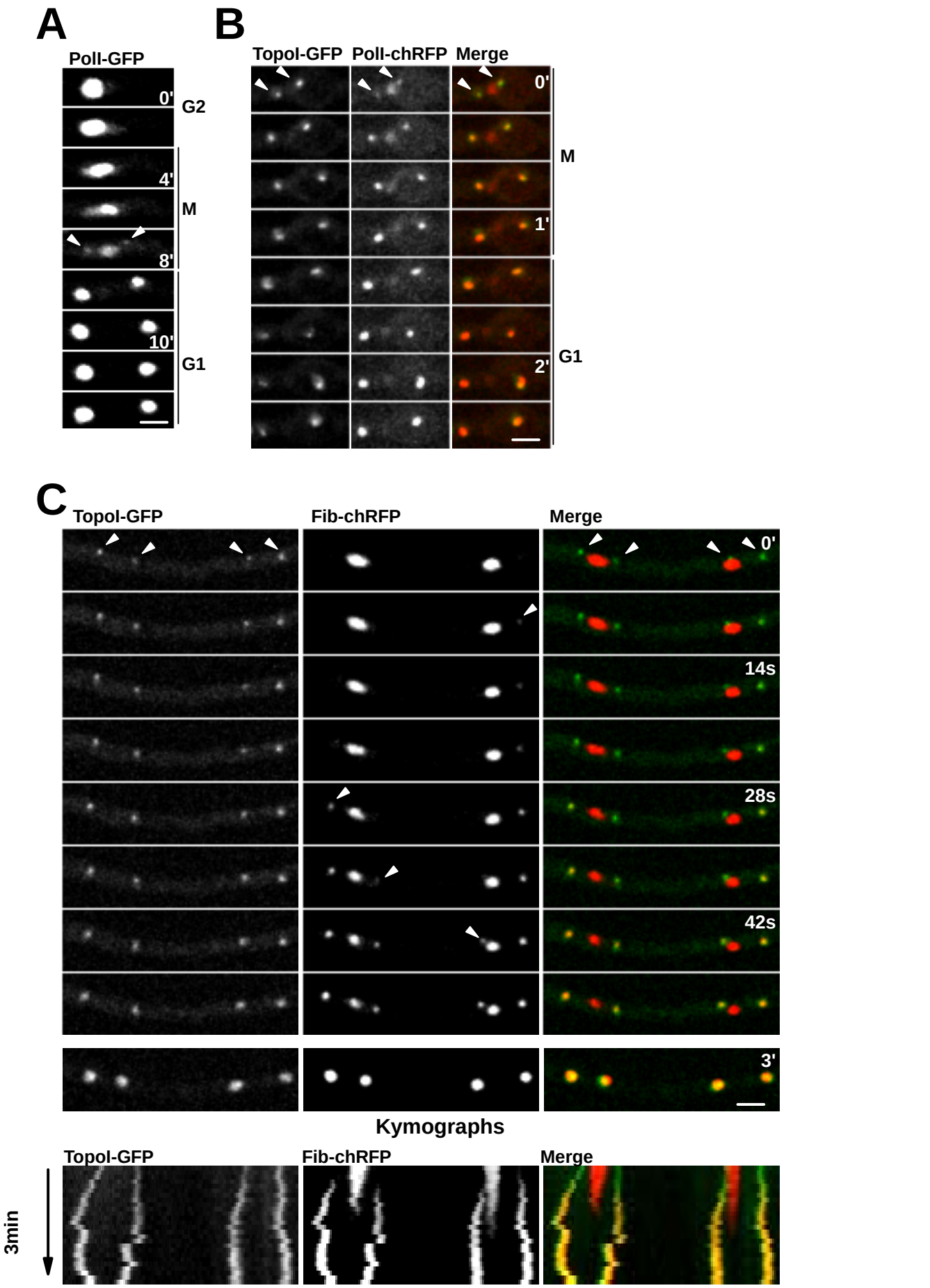
Table S1 *A. nidulans* strains used in this study

Strain	Genotype	Derivation
CDS246	*pyrG*89; *wA*3; *pyroA*4; GFP-*sonBn*^{Nup98} *sonBc*^{Nup96}-mRFP::*pyrG*^{Af}	De Souza et al., 2004
CDS439	*pyrG*89 (*yA2*[1]); *wA*3; *gpdp*::*stuA C-term*-DsRedT4 (NLS-DsRed); *pyroA*4; *sonBc*^{Nup96}-GFP::pyrG^{Af}	CDS396 x CDS283
CDS621	(*pyrG*89[1]); *pyroA*4; An-*nup*49-chRFP::*pyrG*^{Af}; *fwA*1 An-*gle*1-GFP::*pyrG*^{Af}	SO602 x CDS590
CDS767	*pyrG*89; *wA*3; *argB*2; Δ*mad*2::*pyrG*; *An-fib*-chRFP::*pyrG*^{Af} GFP-*tubA* chaA1	CDS596 x CDS410a
CDS778	*pyrG*89 Δ*yA*::NLS-DsRed; *pyroA*4; Δ*mad*2::*pyrG*; *An-bop*1-GFP::*pyrG*^{Af}	LU398 x CDS459
CDS863	*pyrG*89; *wA*3; *argB2*; *An-pol I*-chRFP::*pyrG*^{Af} *An-topo I*-GFP::*pyrG*^{Af} *chaA*1 *fwA*1	LU131 x LU439
HA092	*pyrG*89*;* An-*erg*4-GFP::*pyrG*^{Af} *wA*3*; argB*2*; ΔnkuA*^{ku70}::*argB pyroA4; sE*15 *nirA*14 *chaA*1 *fwA*1	SO451 transformant
HA112	*pabaA*1 *yA*2 (*pyrG*89[1]); *An-erg*4-GFP::*pyrG*^{Af}*;* (*argB*2[1]*), pyroA*4 *ΔnkuA*^{ku70}*::argB*; *histone-H*1-mRFP::*pyrG*^{Af}	HA092 x HA088
LU105	*pyrG*89; *wA*3; arg*B*2; *pyroA*4; An-*erg*4-mRFP::*pyrG*^{Af}; *An-fib*-GFP::*pyrG*^{Af} (*chaA*1[1] *fwA*1[1] n*irA*14[1] *sE15*[1])	LU103 X LU161
LU118	*pyrG*89*; wA*3*; argB*2*; ΔnkuA*^{ku70}*::argB pyroA*4*; An-topo*1-GFP::*pyrG*^{Af} *sE*15 *nirA*14 *chaA*1 *fwA*1	SO451 transformant
LU124	*pyrG*89*;* wA3; *argB*2::*gpdp*::*stuA C-term*-DsRedT4-*argB* (NLS-DsRed); *pyroA*4 (*ΔnkuA*^{ku70}*::argB*[1]) *An-fib*-GFP::*pyrG*^{Af} chaA1 (*sE15*[1] n*irA*14[1])	LU161 X CDS396
LU125	*pabaA*1 *pyrG*89; wA3; *argB*2; *histone-H*1-mRFP::*pyrG*^{Af}*; An-fib-GFP::pyrG*^{Af} (*fwA*1[1] *chaA*1[1] *nirA*14[1] *sE*15[1])	LU161 X LO1353
LU126	*pyrG*89; wA3; *argB*2; *An-nrap*-GFP::*pyrG*^{Af}; *histone-H*1-mRFP::*pyrG*^{Af}; (*fwA*1[1] *chaA*1[1] *nirA*14[1] *sE*15[1])	LU116 X LO1353
LU132	*pyrG*89; *wA*3; *argB*2; *An-topo*1-GFP::*pyrG*^{Af} *An-fib*-chRFP::*pyrG*^{Af} *fwA*1 *chaA*1 (*sE15*[1] n*irA*14[1])	LU118 X CDS410a
LU135	*pyrG*89; *wA*3; arg*B*2; *histone-H*1-mRFP::*pyrG*^{Af}; *An-topo*1-GFP::*pyrG*^{Af} (*fwA*1[1] *chaA*1[1] *sE*15[1] n*irA*14[1])	LU119 X LO1353
LU161	*pyrG*89*; wA*3*; argB*2*; ΔnkuA*^{ku70}*::argB pyroA*4*; An-fib*-GFP::*pyrG*^{Af} *sE*15 *nirA*14 *chaA*1 *fwA*1	SO451 transformant
LU178	*pyrG*89; *wA*3; *argB*2; *histone-H*1-mRFP::*pyrG*^{Af}; *An-cgrA*-GFP::*pyrG*^{Af}; (*fwA*1[1] *chaA*1[1] *nirA*14[1] *sE*15[1])	LU152 X LO1353
LU193	*pabaA*1 *pyrG*89; wA3; *argB*2; *pyroA*4; *histone-H*1-mRFP::*pyrG*^{Af}; *An-bop*1-GFP::*pyrG*^{Af} sE15; (*fwA*1[1] *chaA*1[1] *nirA*14[1])	LU81 X LO1353
LU359	*pyrG*89; *wA*3; *argB*2::*gpdp*::*stuA C-term*-DsRedT4-*argB* (NLS-DsRed); *pyroA*4 (*ΔnkuA*^{ku70}*::argB*[1]); Δ*An-mad*2::*pyrG*; *An-fib*-GFP::*pyrG*^{Af} (*sE*15[1] n*irA*14[1])	LU124 X ΔMd2
LU398	*pyrG*89 Δ*yA*::NLS-DsRed; *argB*2; *pyroA*4; *nicB*8; *An-bop*1-GFP::*pyrG*^{Af} *bimG11* (*nirA*14[1])	LU377 X ΔMd2
LU437	*pyrG*89*; wA*3*; argB*2*; ΔnkuA*^{ku70}*::argB pyroA*4*; An-pol I*-GFP::*pyrG*^{Af} *sE*15 *nirA*14 *chaA*1 *fwA*1	SO451 transformant
LU451	*pabaA*1 *pyrG*89; *pyroA*4; Δ*mad*2::*pyrG An-nup49*-chRFP::*pyrG*^{Af}; *An-bop*1-GFP::*pyrG*^{Af} *chaA*1 (*sE15*[1])	LU399 X CDS590
LU456	*pabaA*1 *pyrG*89; *pyroA*4; *An-nup170*-chRFP::*pyrG*^{Af}; Δ*mad2*::*pyrG*; *riboB*2 *An-bop*1-GFP::*pyrG*^{Af}*(sE15*[1]*)*	LU399 X HA313
LU458	*pyrG*89; (*nimT*23[1]); *alcA*::nd-*nimE*^{cyclinB} at argB; (*bimG*11[1]) *An-fib*-chRFP::*pyrG*^{Af} *An-bop*1-GFP::*pyrG*^{Af} chaA1 (n*irA*14[1])	LU395 x CDS410a
SO451	*pyrG*89*; wA*3*; argB*2*; ΔnkuA*^{ku70}*::argB pyroA*4*; sE*15 *nirA*14 *chaA*1 *fwA*1	Osmani et al., 2006
SO602	(*pyrG*89[1])*; wA3; argB2; sE*15 An-*gle*1-GFP::*pyrG*^{Af}	Osmani et al., 2006

[1] In some strains we have not confirmed some markers which could be covered by or recessive to other markers in the strain.

Supplementary Figure 1. Mitotic segregation of An-Pol I. (A) Time lapse imaging of An-Pol I-GFP during mitosis. (B) An-Pol I-chRFP together with An-Topo I-GFP demonstrating that An-Pol I-chRFP co-localizes with the An-Topo I-GFP foci (arrowheads) as they segregate. (C) An-Topo I-GFP together with An-Fib-chRFP during mitotic exit demonstrating that An-Fib-chRFP accumulates at the segregated An-Topo I-GFP foci which represent the NORs. Arrowheads indicate the segregated Topo I foci and the initial accumulation of An-Fib at these foci. This is highlighted in the kymographs of the time course collecting images every 7 sec. Bars ~5 μm.



Supplemental Figure S1

Supplemental video files.

Video1.mov shows time-lapse imaging of An-Erg24-GFP location during mitosis (Figure 1D). Images were collected every 1 min and are displayed at 2 fps.

Video2.mov shows An-Fib-GFP together with histone H1-mRFP during mitosis (Figure 2B). Images were collected every 40 sec and are displayed at 2 fps.

Video3.mov shows An-Fib-chRFP together with An-Bop1-GFP during mitosis (Figure 3B). Images were collected every 20 sec and are displayed at 2 fps.

Video4.mov shows that when An-Topo I-GFP (mitotic NOR marker) segregates in anaphase, it is removed from the nucleolus (Figure 4D). When An-Fib-chRFP then begins to disassemble from the nucleolus, it is imported into daughter nuclei and accumulates around An-Topo I-GFP at the NORs. Images were collected every 45 sec and are displayed at 2 fps.

Video5.mov shows NLS-DsRed and An-Fib-GFP (Figure 5C) distribution during SIM (*mad2*Δ + benomyl). Images were collected every 45 sec and are displayed at 2 fps.

Video6.mov shows NLS-DsRed and An-Bop1-GFP (Figure 5D) distribution during SIM (*mad2*Δ + benomyl). Images were collected every 1 min and are displayed at 2 fps.

Video7.mov shows An-Topo I-GFP (mitotic NOR marker) and An-Fib-chRFP (Figure 7B) distribution during SIM (*mad2*Δ + benomyl). Images were collected every 1 min and are displayed at 2 fps.

Video8.mov shows An-Nup49-chRFP and An-Bop1-GFP distribution (Figure 8A) during SIM (*mad2*Δ + benomyl). Images were collected every 30 sec and are displayed at 2 fps.

Video9.mov shows An-Nup170-chRFP and An-Bop1-GFP distribution (Figure 8B) during SIM (*mad2*Δ + benomyl). Images were collected every 1 min and are displayed at 2 fps.