Depletion of the Smc5/6 complex leads to an abnormal chromosome structure, i.e., curly chromatids with characteristic hypo-condensed centromeres. Immunofluorescence microscopy of Smc5-depleted human RPE-1 cells typically reveals that topo IIα, a main constituent of the chromosomal axis scaffold, is depleted at centromeres and enriched at the distal chromatid arms. This imbalanced distribution of topo IIα creates an emblematic starburst-like figure at metaphase, which underscores the significance of Smc5/6 in structural control of chromosomes. See the article by Gallego-Paez et al. on p. 302 of this issue of MBoC. (Image: Lina Marcela Gallego-Paez, The Cancer Institute, Japanese Foundation for Cancer Research)