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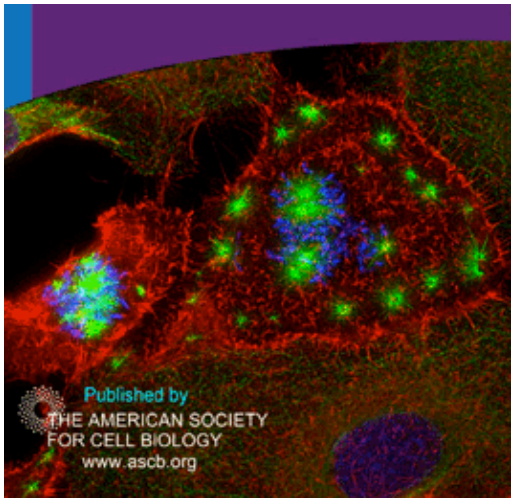

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Supported in part by an Undergraduate Science Education Program grant from the Howard Hughes Medical Institute

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On the Cover [Printable Cover]

Abnormal cell division in Taxol-treated mammalian cells. Monkey kidney epithelial (BSC-1) cells were treated with Taxol, then fixed and fluorescently labeled for actin (red), microtubules (green), and DNA (blue). A z-series of digital images was collected for each fluorescent channel using a Hamamatsu ORCA-ER cooled CCD camera mounted on a Leica DM RXA2 microscope. The images were then deconvolved using a 2-D blind algorithm, and the z-series presented as a maximal projection using Simple PCI software. The final image was generated by pseudo-coloring and merging the three images. The two mitotic cells in

the field are in prophase (right) and metaphase (left). The Taxol induces multiple spindle poles to assemble within the cells, which will ultimately result in failure of cytokinesis. Image by Jessica Hornick and Edward Hinchliffe, Dept. of Biological Sciences, University of Notre Dame, Notre Dame, IN 46556.