

## Article of Significant Interest Selected from This Issue by the Editors

### Inositol Pyrophosphates Regulate Mitosis in the Fission Yeast *Schizosaccharomyces pombe*

Inositol pyrophosphates (IPPs) are unique signaling molecules that control a number of biological processes in eukaryotes. Topolski et al. (p. 3128–3140) now show that chromosome segregation fidelity is modulated by IPPs generated by the conserved *Schizosaccharomyces pombe* Asp1 protein. The absence of Asp1-generated IPPs led to defects in bipolar spindle formation, a severe spindle checkpoint-controlled delay into anaphase A, and chromosome missegregation. Conversely, higher-than-wild-type IPP levels led to a faster-than-wild-type entry into anaphase A and enhanced the transmission fidelity of a nonessential chromosome. These data indicate that intracellular IPP levels tune the precision of chromosome transmission.