End-on view of the atomic model of the bacterial actinlike ParM protein double-helical filament, generated from an electron microscopic reconstruction. A bipolar spindle of antiparallel ParM filaments pushes plasmids to the cell poles, constituting the simplest known apparatus for the segregation of genetic information. The loops on the outside of the 8- to 9-nanometer-thick filaments are involved in spindle formation. See page 1334.

Image: Jan Löwe
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A bipolar spindle, formed by antiparallel actinlike filaments, pushes sister plasmids apart.

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The developmental stages of the sleeping sickness parasite can now be observed without the tsetse fly.

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Loss of the phosphatase PTPN22 enhances the functions of both effector and regulatory T cells.

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Oscillations in the localization of active Cdc42 govern polarized cell growth in yeasts.

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Degradation of an inhibitor of noncanonical NF-\(\kappa\)B signaling promotes cell survival.

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