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On the Cover

FtsZ, a bacterial protein homologous to tubulin, forms a constricting ring-shaped structure during cell division at the location where a septum will form and divide the two daughter cells. The images on the cover, obtained with an atomic force microscope (AFM), illustrate the dynamic behavior of FtsZ filaments in vitro. The filaments are seen initially (A), after 10 min (B), and after 26 min (C) of being resuspended in a thin film of medium containing 1 mM GTP. Asterisks designate the same ring in B and C. Additional images were captured every 2 min (about the time required to scan the preparation) to create a short movie, which may be viewed at http://www.jbc.org/content/vol0/issue2005/images/data/M503059200/DC1/FtsZPolymersMV.AVI.

The AFM creates images not by focusing a beam of radiation like optical and electron microscopes, but by scanning with a fine probe that records the contours of a surface at molecular resolution, as described in the Video Views and Reviews feature on page 306. Contrast indicates the height of an object above the substrate; color is added artificially.

A goal of CBE—Life Sciences Education is to stimulate dialogue; therefore, readers are invited to submit comments on these articles to cbe@ascb.org.