Mitotic spindle assembly is accelerated by the inactivation of wee1 in Schizosaccharomyces pombe wee1-as1 cells when Wee1 kinase activity is suppressed by the addition of PP1 analogues (right). Microtubules and the spindle pole bodies are shown in green and red, respectively. During the G2–M transition, Wee1 suppresses cyclin B–Cdc2 activation at the spindle pole body to counteract a Polo kinase–dependent positive feedback loop. Bipolar spindle assembly is compromised in a strain with a mutant form of Pcp1, a component of the spindle pole body, that is defective in recruitment of Polo kinase to the spindle pole body (upper left). The phenotype is rescued by Wee1 inactivation (lower left). See the article by Masuda et al. on p. 555 of this issue of MBoC. (Image: Hirohisa Masuda, Cancer Research UK, London Research Institute, Lincoln’s Inn Fields Laboratories)