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ABOUT THE COVER

The cover images represent crystallographic structures of estrogen (left), tamoxifen (right), and raloxifene (center) bound to the ligand binding domain of estrogen receptor alpha. Helix 12 (yellow) seals estrogen (left) into the ligand binding domain, allowing full activation of estrogen. The bulky antiestrogenic side chains of tamoxifen and raloxifene prevent helix 12 from sealing and activating the estrogen receptor. The side chain of raloxifene (blue, center panel) shields and neutralizes the critical amino acid D351 (green, center panel), thus allowing few estrogen-like actions to occur in company with the strong antiestrogenic activity of raloxifene. In contrast, the tamoxifen side chain cannot shield and neutralize D351 and thus allows estrogen-like actions to occur. [The cover images appeared originally in Jordan et al., Cancer Res 2001;61:6619–23 (left and right panels), and Liu et al., Cancer Res 2001;61:3632–39 (center panel), and are reproduced with permission of the American Association for Cancer Research.] These molecular pharmacology studies relate to new, long-term follow-up results of the Study of Tamoxifen and Raloxifene (STAR), which showed strong benefit-to-risk profiles for both raloxifene and tamoxifen in preventing invasive and noninvasive breast cancer. See articles by Vogel et al. (beginning on page 696), Hortobagyi and Brown (beginning on page 681), Ravdin (beginning on page 686), and Cuzick (beginning on page 689) for more information.