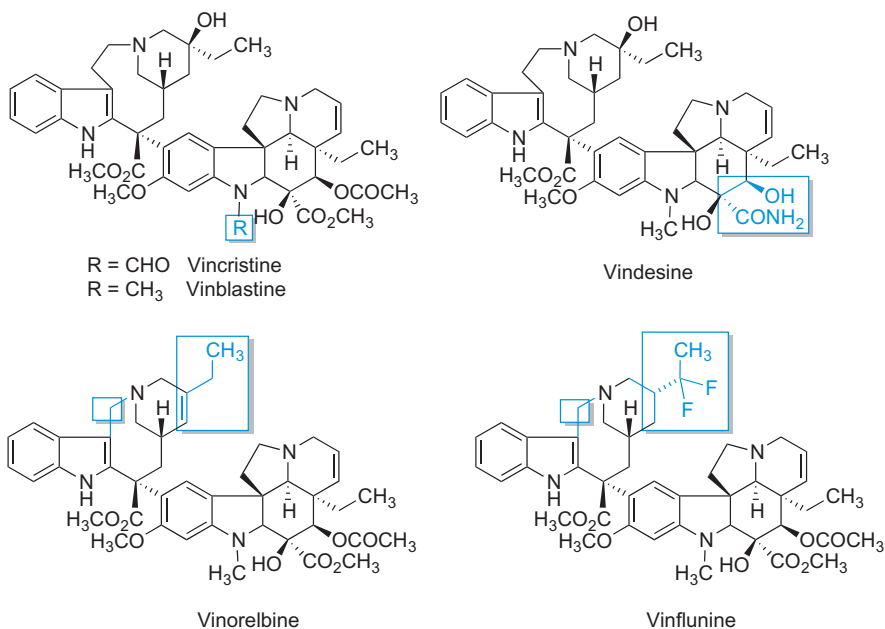


FIGURE 9.2

Main sites of action of antimicrotubule anticancer drugs. The tubulin dimer was generated from Protein Data Bank reference 1TUB and displayed with Chimera 1.8.



The *Vinca* alkaloids specifically block cells in mitosis with metaphase arrest, and hence they are antimitotic drugs. Their biological activity is explained by their specific binding to the  $\beta$  subunit of tubulin dimers in a region called the *Vinca* domain. Binding is fast and reversible, and it induces a