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COVER  Ribbon diagram of the conserved catalytic core shared by all known eukaryotic protein kinases. The crystal structure of the catalytic subunit of cyclic adenosine monophosphate–dependent protein kinase provided the template for the core. The amino terminus of the protein (shades of brown) is associated with magnesium adenosine triphosphate binding, and the carboxyl terminus (purple) with peptide binding. Catalysis occurs in the cleft between the two lobes. Insertions at the sites indicated by dots (blue-green, more than 70 residues; violet, more than 25 residues) occur in some members of the protein kinase family. See pages 407 and 414. [Source: S. S. Taylor; illustration by Diana DeFrancesco]

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