

Based partly on the molecular modelling of the peptides, many highly potent agonists and inhibitors have been synthesized by both solution and solid-phase methods of peptide synthesis. Although subject to rapid enzymatic degradation, these peptides have found substantial uses in medicine to induce labour, to treat diabetes insipidus, and to promote milk secretion. It has been suggested that vasopressins are involved in memory retention and consolidation.

### 3.13 Other Peptides

A number of peptides have been reported in various tissues by radioimmunoassay and bioassay. Gastrin [17 amino acids] and vasoactive intestinal polypeptide [VIP; 28 amino acids] have been reported to be present in human and canine brain, respectively, and throughout the gastrointestinal tract. Cholecystokinin [CCK; 33 amino acids] has been found in the brain and intestine. Renin and angiotensin-forming enzyme have also been found in brain areas, including the hypothalamus and the cerebellar cortex, respectively. Delta sleep-inducing peptide [DSIP; 9 amino acids] shows enhancement and induction of delta (slow-wave) brain activity similar to sleep when administered to mammals.

Chemical and pharmacological tests have revealed the presence of angiotensin and renin in rat and dog brain. Although bradykinin was isolated from blood on the basis of its ability to slow contraction of the guinea-pig ileum, bradykininlike immunoreactive