

structures have been localized in rat brain by immunofluorescence assay. Pentagastrin is among the most used gastrin analogues and has all of the biological properties of gastrin I. Similarly, the tyrosine sulfated and nonsulfated octapeptide C-terminus of CCK has most of the CCK biological properties, including high potency. Potent angiotensin analogues of bioregulators such as the antagonist [Sar¹, (alpha-Me)Ala⁸]-AngII have been developed. Although the use of peptide bioregulators or selected analogues offers great potential, to date few such analogues have been used in humans, usually because of their short duration of action. However, research and development is in a stage of major growth. TRF, LRF, and SS are administered together in a standardized test to study pituitary function. However, their short duration of action and lack of complete specificity have limited their therapeutic usefulness. TRF has been reported by some investigators to relieve depression; however, most studies of the use of TRF in depression have produced negative results. It is hoped that somatostatin can be used as a substitute for insulin therapy in diabetes and as a means of lowering glucagon secretion. However, its short half-life and its widespread effects on numerous functions have prevented its clinical usefulness. The main interest of somatostatin is in its role in turning off the secretion of catecholamines and in lowering blood pressure. The only analogues used by several groups of clinical investigators as a means of improving pathological conditions are long-acting LRF agonists.