

Specific Peptides Perspective of Proteins
Uri Weingart and David Horn.
October 2021.

1. Introduction.

Genes were perceived well before they have been determined to exist on chromosomes. In hindsight, it seems quite a surprise to find that they are just stretches of nucleotides within much larger sequences of DNA, often also interspersed by non-coding sections (introns). The identity of genes comes to life after being transcribed into RNA molecules, and translated into proteins, the important components of the machinery of living cells.

Proteins are molecular chains of amino acids. They are being studied by investigating the linear composition of amino-acid sequences, or their folding structures, or their functional properties, as revealed by their interactions with other molecules. In this paper, we will accentuate a different perspective of their structures, resulting from amino acid motifs, which are observed to be common to many proteins having the same function, or belonging to homolog genes of different species.