Copy of a printed drawing of a model of collagen structure referenced as "Pauling's model. Collagen structure"

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Fraser, Robert Donald Bruce, 1924-

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with the α-keratin structure, which had always been accepted as representing a fiber-axis distance, has been found[6, 7] to be in fact a diagonal spacing, there seems to be little reason to doubt that the 2.86 A spacing of collagen represents a fiber-axis distance.

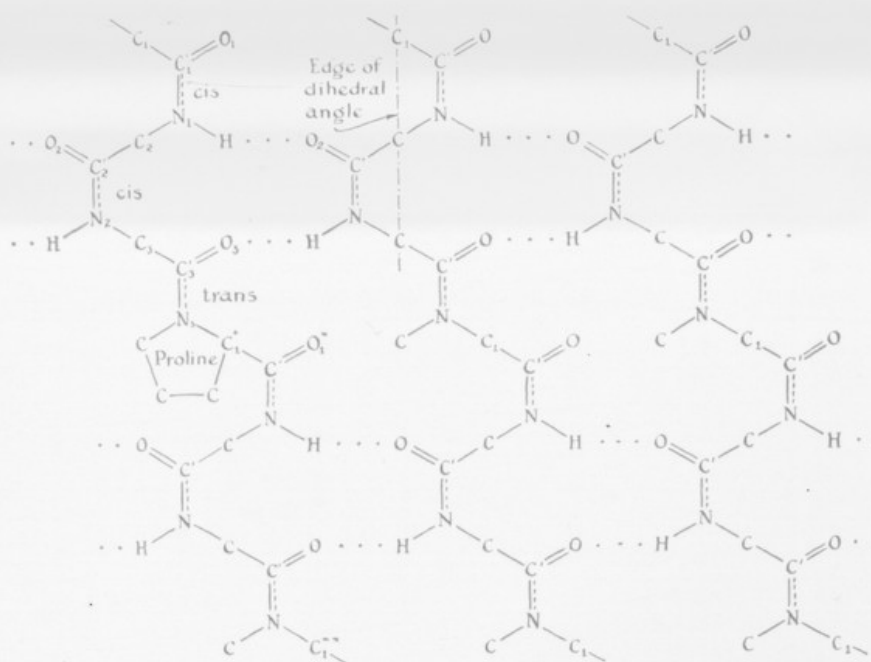We found it impossible to formulate a satisfactory structure for collagen

FIGURE 1

Diagrammatic representation of the configuration of polypeptide chains in the collagen-gelatin three-chain helix.

from cis amide groups alone. However, a satisfactory structure, described in detail in the following paragraphs, has been formulated with use of poly-peptide chains in which there is an alternation of two cis groups and one trans group, as shown in figures 1 and 2. The angular orientation which the trans group is required to assume by its bonds with the contiguous cis