

detached by the penetrating fat. Further, newly-formed cells frequently become infiltrated with the latter substance.

Fat also occurs in the form of granules of uniform size, from the  $\frac{1}{99}$  to the  $\frac{1}{9}$  of millimetre, consisting of oleine, associated with proteine, or the solid fats, as in exudations.

In the crystalline condition, margarine occurs rarely in the form of acicular crystals mingled with other substances. More frequently cholesterine is found either alone—as in cholesteatomatous tumors, or associated with other deposits. In the former case it has a pearly lustrous appearance, and is crystallized in rhombohedral tables; or, in combination with other fats, it is contained within cells.

#### 9. *Transition Forms to Perfect Tissues.*

1. Fusiform fibres constructed upon nuclei, and nuclear fibres produced by elongation of the latter. These constitute the characteristic form in soft polypi of mucous membranes, and that modification of the same in which cysts filled with serum are developed simultaneously within tumors composed of them—as in cystosarcoma and fibrous tumours. Further, they also compose those hardened flesh-like tumors of the skin, the so-called sarcomata. Again, they form firm masses, consisting of nuclei and nuclear fibres, as in some varieties of fibrous tumors of the uterus.

2. Branched flat fibres, not fasciculated, with numerous hollow or solid nuclei, accompanied rarely with sparse cells, and deposited in an albuminous, amorphous, or granular substance, as in albuminous sarcoma.

#### 10. *Perfect Tissues.*

1. Areolar and adipose tissues are frequent pathological formations. The former, with fat cells, is the most common metamorphosis of plastic matter when deposited in excess. It is formed from exuded fibrine, the result of inflammation or the ordinary course of nutrition, and it is to be remarked, in the former case, its fibres originate according to the four modes previously indicated—i. e., by cleavage and coagulation, by deposit around nuclei, by elongation of nuclei, and from cells.

Examples of areolar or fibrous tissue, developed as a result of inflammation, are presented by the pseudo-membranes, and others produced in the course of physiological nutrition, are the adipose tumors or lipomata.

2. Tendinous tissues—at least so far as it resembles such in external appearance and in the arrangements of its fibres, is very frequently developed in the so-called fibrous