

melanophore we are dealing with a modified and disguised type of smooth muscle cell.

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Characteristics of the precipitation reaction.

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In a previous communication I showed that when a chemically pure protein, such as crystallized egg albumin, is used as antigen, it combines with the precipitin of immune serum to the complete exhaustion of either factor from the mixture. From these observations the conclusion was drawn that an equilibrium subject to the laws of mass action, such as had been previously described in precipitation reactions, does not exist in these reactions, those results being attributable to the use of impure antigens, such as complex native sera. Further study has shown that chemically pure antigen unites with the precipitin in proportions that are definite and constant. The same amount of precipitinogen always "binds" an equivalent amount of precipitin, regardless of the relative excess of the latter substance in the mixture. The reverse of this statement likewise holds true. Hence it follows that it has not been possible to demonstrate the Danyz-Dungern phenomenon in the precipitation reaction when carried on with pure reagents. It appears likely, therefore, that the reaction conforms to the type of quantitative chemical reactions, and is not comparable to the adsorption phenomena exhibited by mutually precipitating colloids.