

Third meeting.¹

Zoölogical Laboratory of Columbia University. October 21, 1903.

13. "An experimental study of cell-specification in embryonic development," with demonstrations: **EDMUND B. WILSON.**

The author presented the results of a study of the development of isolated embryonic cells, in the mollusks *Patella* and *Dentalium*, which demonstrates that from the first cleavage onward, an isolated blastomere undergoes essentially the same differentiation as if it had remained in connection with its fellows. These eggs accordingly show a true mosaic development and differ widely in this respect from those of echinoderms. It was also shown that the specific character of the cleavage cells is predetermined, at least in part, by specification of the regions of the unsegmented egg from which the blastomeres arise, as is proved by the development of fragments obtained by cutting the egg in two before development has begun.

14. "The occasional presence in the blood of untreated adult animals of large amounts of substances agglutinating many bacteria," with demonstrations: **WILLIAM H. PARK.**

The affinities of bacteria for specific agglutinins have been made use of, since the researches of Gruber, to establish relationships between different cultures. The test properly performed is delicate and reliable, but when carried out with insufficient precautions is often misleading. It has been known for some time that the blood of animals before immunization possessed, in moderate amount, substances which agglutinated many bacteria. An agglutination of bacteria must, therefore, take place in a high dilution of serum before it can be considered a specific reaction.

From results obtained in his own researches, the author considers that even this requirement is insufficient. He found that, before any inoculations had been made, the blood serum of certain horses agglutinated, even in such great dilutions as 1 in 1,000, both the bacilli having the characteristics of the true dysentery bacilli of Shiga, and those having the characteristics of the mannit-fermenting class of Kruse, Flexner and Duval. This was true to a somewhat less extent of the serum of full-grown goats. It has

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