

*anthracis*) is artificially cultivated in an indifferent fluid, by the method of successive generations, which I have described in my report, each successive generation becomes less active than its predecessor, and when inoculated acts not only with less intensity, but more gradually, and often in a somewhat different manner. This modification takes place to such a degree that when the cultivation has been carried to the fourteenth or fifteenth generation, it may be introduced with impunity into the system of a mouse, which is one of the animals most susceptible to the poison.

Apart from its scientific interest, this fact will doubtless prove to be of practical value, for by its means it will be possible to obtain a virus of sufficient activity to produce an attack of the disease which shall be protective, but not of sufficient severity to be dangerous, or in any way injurious to the animal inoculated.

With regard to any apprehended ill-effect upon the animals thus inoculated, I may say that the cows which we have used have thriven remarkably well, and none so well as that which has been most severely tested.

I hope in a future report to give the details of these investigations, which have necessarily been extensive and complicated.

I venture, therefore, to urge upon the Society the importance of continuing these experiments, so as to bring them to a complete and decisive result. In order to do this, further outlay in the purchase and keep of animals, and other expenses, will be necessary, which will involve the renewal of the grant for the ensuing six months.

**Dr. Carl Rabl on the Pedicle of Invagination in Pulmonate Gastropoda.**—Dr. Rabl has renewed his investigations on the embryology of Planorbis, and has arrived at a result which brings his observations of fact and my own (published in this journal in 1874) into close agreement on a matter of considerable importance concerning which he was at first led to differ from me.

He writes relatively to the question of the existence of a "pedicle of invagination" as follows (dated June 4th):

"The youngest embryos, of which I have cut sections in order to determine the above question, were little older than those drawn by me in Plate XXXII, fig. 20, of my Memoir. Although by observation of the embryos as whole objects I could see nothing which could lead to the inference of the existence of a pedicle of invagination, yet I convinced myself by the aid of sections that a cylindrical solid cord

exists which leads from the cavity of the mid-gut to the integument. This cord consists of small endoderm-cells, rich in granules, and the ectoderm-cells of the spot where it comes into contact with the integument are somewhat longer and poorer in granules than the neighbouring cells. There is, however, no trace to be seen of an orifice of invagination.

"In sections of somewhat older embryos one can observe that the cord becomes hollowed out, the hollowing process taking origin from the cavity of the mid-gut, and it is easy enough to convince oneself that it gives rise to the terminal gut. Accordingly I am in the pleasant position of being able to confirm your statements, in so far as that a cord exists which stretches from the integument to the gut, but, on the other hand, I consider that my view is confirmed, that the terminal gut is a derivative of the mid-gut.

"Your interpretation of this cord as a 'pedicle of invagination' I am not able now, any more than before, to accept."

Dr. Rabl will explain his views and observations at greater length in Professor Gegenbaur's 'Morph. Jahrbuch.'

E. RAY LANKESTER.

**Development of Muscular Tissue from Epiblast in the Mammalia.**—According to recent observations of Ranvier this extremely important and unexpected fact has been established by him in regard to the muscular coat of the sweat-glands. The reader is referred to Ranvier's notice of his discovery in the 'Comptes Rendus of the Acad. of Sciences of Paris,' Dec. 29th, 1879.