gelatin-Ringer's solution show that this is due for the most part to differences in the fragility of the erythrocytes. Corpuscles of the several species in question, protected with gelatin during washing and placed in plain Ringer's, differ relatively little in their period of survival.

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Experimentally fused embryos with special reference to giant larvæ formation, changes of symmetry, and changes of synchrony.

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Experimentally fused groups of two or more eggs of the sea-urchin *Arbacia punctulata* were studied individually from the blastula stage through the larval stage as late as the 14-day larvae. These isolated groups were studied with respect to the behavior of the three major tissues, body wall, gut and skeleton, and, of the processes taking place I wish to mention briefly only three.

1. Contrary to the views of Boveri and DeHaan two fused eggs may develop into a single giant larva even when the axes and symmetry of the two eggs or blastula or gastrula are not in the position of two blastomeres of an egg. A considerable number of fused pairs of eggs were followed through their entire development, in which the axes of the two numbers diverged 35 to 135 degrees from each other, yet these eggs gave rise to single giant larvæ.

Some of the processes involved in the transformation of two asymmetrically fused eggs include (1) change of symmetry, (2) retardation, (3) repression of one of the members, (4) absorption of one or more parts, (5) conflict of the skeleton centers, (6) size and rate factors in development.

2. There is a definite tendency for the two members to grow unequally, the one becoming increasingly small, though the rate of development is little or not affected. The law of synchrony as developed by recent investigators certainly does not apply in these grafts, and the regulative changes are due in largest part to the other factors enumerated.

3. Much evidence was collected that an absolute and relative change of axes takes place in many instances and in two directions, towards a symmetrical arrangement of the two members and, away from such symmetry, and the extent of such changes was determined and measured. There is no clear evidence of any change in polarity.

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The influence of certain agents on the activity of phospho-nuclease.

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The influence of certain chemical agents on the action of the phospho-nuclease of the intestinal mucosa of the hog was studied. In most cases 2 per cent. solutions of the substances tested were used with 10 c.c. of a 20 per cent. tissue extract, and 5 c.c. of 2 per cent. solution of neutral sodium nucleate.

Salts of Ca, Ba, Sr, and Li inhibited the action considerably while Mg, the phosphate of which is more soluble, did not inhibit. Uranium salts entirely inhibited. The inhibition in these cases appears to be due mainly to the removal of phosphate. The salts of the heavy metals, Hg, Ag, Cu, and U almost entirely inhibited while lead salts had less effect. The effect of these latter may be largely due to destruction of the enzyme.

Oxalate, tartrate, and fluoride had marked inhibitory effect while citrate did not show this. With the exception of citrate these form insoluble salts with Ca. Apparently the inhibitory action is due to removal of Ca ions. The suggestion that a slightly acid solution was favorable could not be confirmed. HCl to make 0.05 per cent. solution practically stopped the action while an equal amount of NaOH doubled the amount of phosphoric acid set free. The same favorable effect was found when a little $NaHCO_3$ was added and the mixture saturated with CO_2. Apparently a slightly alkaline or balancing solution is favorable. NaCl, K_2SO_4 and KI stimulated slightly. NH_4NO_3 and potassium arsenite inhibit somewhat. KCN in .25 per cent. neutral solution