Substances with significant effect (1–2 hr. prolongation) on survival on addition to BRGMA. Adenine, adenosine, yeast nucleic acid (commercial), thymus nucleic acid (commercial), adenine and ribose and nicotinamide, adenosine and nicotinamide, adenosine and nicotinic acid.

Rabbit serum ultrafiltered through transparent cellulose (British Sidac, Ltd.; pore size 7–30 A.) and presumably protein-free (biuret negative) has a more marked but, compared with an equal volume of serum, incomplete ability to promote parasite survival (5 hr. with *BR*, *BRG*, *BRGM*, and about 8 hr. with *BRGMA*). A comparable effect is produced by 0·2 per cent 'Difco' bacto-peptone.

Effect of gaseous environment. All the above experiments were carried out in air. Carbon dioxide-free air, 100 per cent oxygen and 100 per cent nitrogen were found to be toxic for cultures in *BRGMA* containing water-soluble vitamins, adenine and ribose. Survival in this medium was enhanced by incorporation of 5 per cent carbon dioxide, and markedly enhanced by the mixture 5·6 per cent carbon dioxide, 7·8 per cent oxygen, 86·6 per cent nitrogen.

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Chemical Composition of Mammalian Sperm

Mammalian sperm have been reported by various workers to contain no nucleoprotamine or nucleohistone extractable by the usual means (with water or neutral salt solutions)[1]. This has been confirmed in the case of the bull, man, dog, boar and ram, but basic protein and nucleic acid, having solubility properties quite different from the usual, have been extracted from the isolated heads of these cells.

A lipoprotein has also been extracted from the isolated heads of the above-mentioned sperm. In the case of bull sperm, this complex contains slightly more than 25 per cent lipid, which includes phospholipid and cholesterol. The lipoprotein of human sperm was found to contain only one component electrophoretically at *p*H 8·2.

The sperm heads can be fractionated, by a simple procedure, into three parts which make up almost all the total substance of the heads. The lipoprotein is obtained by extracting with a 0·14 *M* sodium chloride solution adjusted to *p*H 9 with sodium hydroxide, and the basic protein and nucleic acid by extracting with more strongly alkaline solutions. The lipoprotein is precipitated from solution at about *p*H 5·6, the basic protein in the region of *p*H 11 and the nucleic acid at about *p*H 2.

Details of this work will be published elsewhere.

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Totem Poles and Blood Groups

In reviewing a book on totem poles in the Pacific coast region of British Columbia, Dr. G. H. S. Bushnell[1] accepts the suggestion that "the north-west coastal tribes may themselves have come over from Siberia within the preceding few centuries". This conclusion, which was formerly held, is negatived not only by the fact that the Eskimos have long occupied the whole of the Alaskan coast, but also by the blood groups of the Indians in question.

To test this very question, three hundred of the coastal Indians were blood-grouped many years ago[2]. Although much mixed with Europeans, they showed only 12·7 per cent *A*, and two *B* individuals, one of whom was Negroid. If they were a late wave from Siberia, they should have had a high frequency of *B*, like all the Mongoloid peoples of Asia. Ride and Furuhata afterwards tested 203 more Indians from the same areas with similar results. The high percentage of the *O* blood group (75–86 per cent) is thus quite incompatible with a late Mongoloid origin of the British Columbia Indian tribes. They must apparently be derived from an earlier stratum of Asiatic population, which is represented, at least in part, by some Tibetans and by certain remnant tribes on Formosa. This subject has also been discussed elsewhere[3].

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In quoting the suggestion to which Prof. Ruggles Gates takes exception, I did not mean to give the impression that I either accepted or denied it, since I did not feel competent to express an opinion about it.

The first objection, based on the distribution of the Eskimos, does not seem to me to exclude the possibility of a migration by sea. On the other hand, speaking as a layman in matters of genetics, I can only say that the evidence of blood groups seems conclusive, and I am grateful to Prof. Ruggles Gates for directing attention to it.

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