research work in the coming year at eleven of these institutions. As a result of war conditions, the fields of science in which the scholarship holders will work are reduced in number as compared with a few years ago. By far the greatest number will work in various branches of chemistry related to the war effort. Smaller numbers will work in physics, engineering and other subjects largely connected with war research.

DISCUSSION

DESTRUCTION OF RED BLOOD CELLS AFTER FAT INGESTION

JOHNSON and Freeman[1] have shown that the thoracic duct lymph of dogs fed fat is markedly hemolytic. Fatty acids and soaps, which have presumably escaped resynthesis into neutral fat during absorption, are present in duct lymph in quantities sufficient to account for the hemolysis observed.[2]

Although this lymph empties but slowly into the blood stream, after a fat meal the circulating red blood cells become exposed to a sufficient quantity of the hemolytic agent to cause an acceleration of the normal daily red blood cell destruction, so that in dogs[3] and in man[4] the daily excretion of the degradation products of hemoglobin is greater on a high fat diet than on a low fat diet.

More directly, Longini, Freeman and Johnson[5] have demonstrated in dog's lipemic blood the presence of an agent which increases the fragility of red blood cells.

It has now been possible to show that drinking one pint of 32 per cent. cream (150 cc of fat) causes human serum to become injurious to red blood cells, increasing their fragility. Details of this experiment will be published elsewhere.

Although the extra blood destruction resulting from fat ingestion seems to be insufficient to produce anemia in normal individuals, whose bone marrow is capable of replacing these extra cell losses, it remains to be determined: (1) whether regeneration of red cells after blood loss, when the bone marrow is excessively taxed, might be hastened by a low fat diet, and retarded by a high fat diet, or (2) whether abnormalities in fat absorption or abnormal sensitivity of cells to the hemolytic agent described might contribute to the production of certain human anemias not associated with blood loss.

These possibilities are under investigation in this laboratory.

VICTOR JOHNSON
JOAN LONGINI
L. WILLARD FREEMAN
THE UNIVERSITY OF CHICAGO

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GONADAL HORMONES IN SNAKES

ANDROGENIC and estrogenic content of the gonads of several vertebrates has been tested since the work of Allen and Doisy,[1] Martins and Rocha e Silva,[2] Moore, Gallagher and Koch.[3] Also the gonads of ovoviviparous snakes contain these substances. We have assayed an alcoholic extract from the testes and ovaries of 324 *Bothrops jararaca* and *Crotalus terrificus terrificus*. The residue of alcoholic distillation was extracted by ether, this evaporated and the oil matter so obtained mixed with arachnis oil.

Assays for androgens were made in spayed colchicine treated rats, according to the method first described by Martins[4] and in Leghorn white capons by the comb method. With a total dose of 10 mg of testicular tissue in 1 cc of arachnis oil, a positive effect was observed in both tests.

Assays for estrogens made by the Bülbring and Burn technic,[5] with estrone in parallel, gave a concentration of 2,000 estrone units per kg of fresh ovaries, a value in accord with that mentioned by Fraenkel and Martins.[6] Tests on capons for possible androgens in ovarian extract after estrogenic separation were negative.

As Porto,[7] also in this laboratory, found progestational substances in the corpora lutea of the same *Crotalidae,* we can say that gonads of those snakes contain the three kind of sexual hormones.

J. R. VALLE
L. A. R. VALLE
SEÇÃO DE ENDOCRINOLOGIA,
INSTITUTO BUTANTAN,
S. PAULO, BRASIL

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NAMES, RUSSIAN AND OTHER

THE note by Dr. Hrdlička on "Russian Names" (in SCIENCE of March 12) raises a point in a problem of