gonadotrophin treatment considerable thickening and repairing of lamina was noted together with disappearance of the lipid from the tubules, which almost resembled those of normal testis in the breeding season (Figure 2). Collagenous support, probably of soluble form, is clearly seen in normal testis, on both sides of lamina. Gonadotrophin was also found to replenish this collagen around lamina propria, indicating that integrity of lamina and laminar collagen probably remains under gonadotrophic control of the pituitary. Increased utilization of testicular hormone may influence the connective tissue formation like oestrogen[7-9].

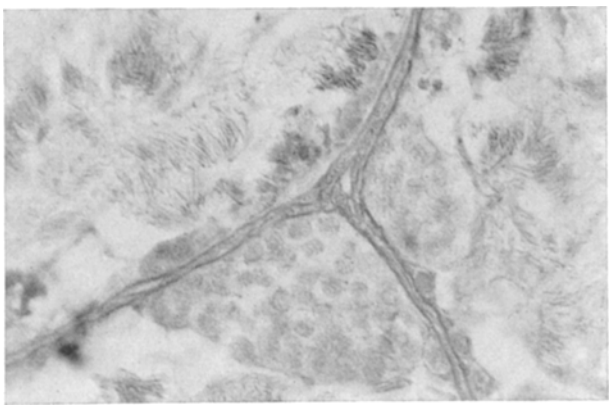

Fig. 2. Toad's testis (breeding season – active season). Note single layer of well-formed lamina supported on both sides by distinct collagen. × 192.

Résumé. Le lipide dans des tubules testiculaires de crapaud à l'état engourdi s'accumule peut-être, en pénétrant dans la lamina propria. Cette lame, comme il a été noté, était faible à l'absence de gonadotropine PMS qui rend forte la lamina propria et aussi la structure collagéneuse qui supporte la lamina propria.

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Tumour Immunity in Rats Following Injection of Homologous Ribosomes

Several authors have published the results of the antitumour effect of ribonucleic acid (RNA) from normal tissues[1-3]. It is probable that, under the influence of RNA from the normal tissue homologous to the tumour, the ability of autonomous growth of the latter is decreased.

The experiments we performed are related to another mechanism whereby RNA from normal tissues can be used to influence tumour growth.

It has been shown[4] that the anti-ribosomal sera precipitate the homologous as well as the heterologous ribosomes, an antigen common to all the ribosomes being RNA itself, and that an autoimmune response can be obtained following injection of liver ribosomes in animals[5].

The results presented here show that tumour homotransplants are rejected in rats in which autoimmunity has been produced with homologous ribosomes.

Male Wistar rats weighing 180–200 g were injected subcutaneously with a 1:1 mixture of ribosome suspension (50 mg of protein) and complete Freund's adjuvant (Difco). Control rats received the adjuvant only.

The ribosomes were prepared according to Zamecnik and Keller[6]. Protein was determined by the method of Lowry[7] and phosphorus as described by Lindberg and Ernster[8].

After 70 days the rats were injected intraperitoneally with 2 million cells of Yoshida ascites tumour. Blood was taken from the ribosome-immunized and control rats, before the injection, for hematological and serological[9,10] tests.

All control animals died between the 14th and the 18th day after tumour transplant, whereas 4 of 15 immunized rats died at the same time, and 11 survived indefinitely. Some of the ribosome-immunized animals had developed a slight anaemia and increased erythrocyte sedimentation rate, but no clear evidence for humoral or cellular factors in the inhibition of the growth of tumour transplant has been obtained.

Riassunto. Ratti trattati con ribosomi omologhi di fegato in «Freund adjuvant» sviluppano una condizione di refrattarietà al successivo trapianto di cellule di epatoma ascitico di Yoshida.

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