operation in the transparent *Xenopus* larva. Injection of thyrotrophic hormone increases the rate of hind-leg growth in normal animals with little effect in thyroidectomized animals. Some batches of purified thyrotrophic hormone seem to be contaminated with iodinated substances. However, the method can be used for assay of the extracts, whether active iodine is present or not, by using both normal and thyroidectomized larvæ.

Similarly, thyroid hormone and thyrotrophic hormone, present in human blood and body fluids of other animals, are effective and can be estimated. Work continues on the thyroid and thyrotrophic hormone content of human blood, which may differentiate cases of hyperthyroidism.

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Isolation of a New Strain of *Plasmodium knowlesi*

Sinton and Mulligan[1] isolated a virulent strain of *Plasmodium knowlesi* from a mixed infection of *P. knowlesi* and *P. cynomolgi* in *M. irus* monkeys imported into Calcutta from Singapore; it was possible only after rapid serial passages through rhesus (*M. rhesus*) monkeys. Eventually, the strain of *P. knowlesi* was being maintained for chemotherapeutic and other studies by the Malaria Institute of India, Delhi, and by some laboratories in Great Britain and the United States.

By 1952, these institutions had either completely lost the strain or it was found to be attenuated, as reported by Jaswant Singh, Ray and Nair[2]. Attempts have been made in recent years to isolate again a virulent strain in rhesus monkeys from *M. irus* from Malaya, through the courtesy of the Institute for Medical Research, Federated Malay States. From the materials received, only *P. cynomolgi* and *P. inui* could be demonstrated[3].

Early this year, Dr. Edeson was able to detect a plasmodium which he believed to be *P. knowlesi* in a Kra monkey (*M. irus*) obtained from the Nuri Valley near Tampin (Malaya). When the infection was passaged to rhesus monkeys sent from the Malaria Institute of India, the intensity and course of infection were found to be severe. Samples of blood from two such rhesus monkeys were flown to Delhi in January 1953, and rapid serial passages were made. Inoculations were given intravenously or intraperitoneally, the dose of inoculum varying from 1×10^6 to 50×10^6. The prepatent period varied from one to three days when infected blood was injected intraperitoneally, and from four hours to forty-eight hours after intravenous injection. When patency was fully established, irrespective of the dose of inoculum and the route of injection, in all cases there was rapid rise in parasite counts. In most cases it reached 90–96 per cent cell infection prior to death, which invariably occurred five to seven days after the appearance of parasites in the peripheral circulation. Of fifty animals studied, hæmoglobinuria was observed in about ten. Extreme anæmia and rapid prostration were dominant features in all cases.

Differential parasite counts[4] from blood smears taken every four hours for five to seven days during the course of infection have revealed a clear-cut 24-hr. periodicity.

The morphology of the parasite resembles closely the description given by Sinton and Mulligan[1]. Besides, band forms similar to those reported by Brug[5] and a few other characteristics have been observed, and are being studied in detail.

To eliminate the co-existence, if any, of any other species, spleens were removed from some monkeys before or after inoculation. This procedure was found useful by Jaswant Singh *et al.*[3] and Jaswant Singh and Ray[6].

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Toxicity of Radiostrontium in Monkeys

As a preliminary to a long-term investigation, eight monkeys have been injected with large doses of pure strontium-90 (25 years half-life) in equilibrium with its short-lived decay product yttrium-90. There is a higher toxicity and greater retention than in other species of animals[1]. Results are summarized below:

Injection dose (mC./kgm.)	Survival time (days)
2·0	13 15
1·0	21 23 24 25
0·5	35 56

All the animals apparently died from anæmia; the hæmoglobin, red-blood cell count and packed-cell volume fall in a remarkably consistent manner; the white-cell count always falls before the red-cell count.

The amount of radiostrontium retained in the body at death was estimated from autopsy radioactivity analysis and from the total activity excreted before death. The retention varied between 90 and 66 per cent. The relative rate of excretion is higher for animals receiving a lower dose. The logarithm of the strontium-90 activity of the daily excreta plotted against the logarithm of the number of days after