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Health and Biology

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MEDICAL AND HEALTH PHYSICS

QUARTERLY REPORT

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[illegible] OF VARIOUS MATERIALS

[illegible]

[illegible]

[illegible] Patricia Wallace,
[illegible]

[illegible] at a vigorous level and now, with [illegible] is being prepared for publication.

[illegible] summary was given of the work done in [illegible] the anterior chamber of the eye. [illegible] experiments was not stated. [illegible] the initiation of these experiments [illegible] of Ophthalmology. One was the possible [illegible] of retention cysts following removal [illegible] These cysts arise occasionally [illegible] of the cellular conjunctiva are carried [illegible] the surgeon's scalpel. They [illegible] sac filled with clear [illegible] of the aqueous humor, itself [illegible] so that they require aspira- [illegible] measure, and as a rule after a [illegible] the eye is destroyed [illegible] that this structure causes an [illegible] produces a glaucoma with re- [illegible] therapy have been in [illegible] was approached by a member of [illegible] of exploring the possibility [illegible] a short-lived alpha active [illegible] as the walls of the [illegible] thickness. With all of the data [illegible] at a level below [illegible] microcuries [illegible] it was felt that it would be safe [illegible] microcuries, a safety factor of [illegible] the difference in size [illegible] finally, as was anticipated [illegible] from the sac as rapidly as [illegible] there was a hold-up factor [illegible] of the astatine to disappear due [illegible] trial and its present [illegible]

The histopathological changes seen in the eye of the monkey at the 75 to [illegible] microcuries dose level indicated a severe iritis, with the iris itself [illegible] The cornea showed evidence [illegible] structure, the presence of large [illegible] The lens was of considerable

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[illegible] apparently the [illegible] produced are comparable to those seen [illegible] the presence of large numbers [illegible] of the lens structure. It is [illegible] of the radiation of the equitorial [illegible] alpha particles and hence were [illegible] responsible for the changes [illegible] throughout this structure.

[illegible] the [illegible] of astatine in such a manner that it was [illegible] other impurities, either chemical [illegible] the [illegible] The [illegible] the cyst was only 3.05 [illegible] of astatine in sterile [illegible] volume was estimated to be of the [illegible] to the administration of the [illegible] portable Geiger [illegible] collimating hole, it was possible [illegible] the apparent disappearance time [illegible] from the anterior chamber, [illegible] of the accuracy of the volume of [illegible] counter and counting the [illegible] the same desired [illegible] of 15 to 20 per- [illegible] by means of the [illegible] that the astatine was retained in the sac [illegible] of 2 to 3 hours. Pacer measure- [illegible] followed [illegible] However, a precise evalua- [illegible] of [illegible] was rendered difficult [illegible] but it did appear to be some- [illegible] As a precautionary measure, [illegible] the patient received 500 milli- [illegible] of potassium [illegible] as it had been previously [illegible] of radio-iodine prior [illegible] the latter is markedly re- [illegible] During the experiment, no astatine [illegible] this was done, [illegible] of corneal edema about the [illegible] in view of the traumatic [illegible] at the base of the cyst show [illegible] not marked. The cyst itself [illegible] of fluid is apparently still [illegible] by the cells of the cyst wall [illegible] as very possibly a considerable [illegible] on the inner wall of the cyst [illegible] be followed for a considerable [illegible] changes in the cyst, which of [illegible] Should no beneficial effects [illegible] to repeat this procedure.

The [illegible] astatine has included thyroid up- [illegible] to 70 hours in rats in which a [illegible] observed that frequently [illegible] results are comparable to those