pound F and Compound A. Desoxycorticosterone (100 gamma or more) produced only a partial eosinopenia. No decrease in eosinophils were produced by various oils, androsterone, dehydroandrosterone, progesterone, estrone, testosterone and numerous other non-adrenal steriods in the doses given.

22. *Diffuse thalamic projections to the telencephalon.* T. E. STARZL and W. CARPENTER, Department of Anatomy, Northwestern University Medical School. (Introduced by H. W. Magoun)

The recent work of Jasper and his associates has made increasingly apparent the functional importance of the diffuse thalamic projection system discovered by Dempsey and Morison; however, there has been no commensurate increase in knowledge of the system's structural organization. Rose and Woolsey, observing that the intralaminar and midline thalamic nuclei of this system, which fail to degenerate after neocortical ablation, do so after more extensive forebrain removal, proposed that these nuclei might project to the rhinencephalon, and the possibility has been supported by Droogleever-Fortuyn and Jasper.

In the present study, this proposal was tested in cats by exploring forebrain structures for changes in electrical activity evoked by low frequency stimulation of the intralaminar and midline thalamic regions. Neither recruiting responses nor other potential alterations could be detected in the septum, olfactory tubercle, amygdala, anterior pyriform cortex, or hippocampus.

Recruiting responses of an intensity greater than those from adjacent regions were recorded from the cingulate and orbital cortex, in the latter area the rhinal sulcus demarcating their ventral distribution. Similar excellent recruiting potentials were picked up from the head of the caudate nucleus, and the region of the external capsule or claustrum. These findings, then, fail to demonstrate a diffuse thalamic projection to the rhinencephalon, but indicate abundant connections to its vicinity.

58. *Cultivation of adult human endometrium in vitro.* Robert J. STEIN and Virginia M. STUERMER, Department of Obstetrics and Gynecology, State University of Iowa. (Introduced by W. R. Ingram)

Adult human endometrium cultivated for a limited period (7 days) in a fluid medium composed of Parker's serum-Tyrodes solution or White's synthetic medium maintains the characteristic functional activity and histologic appearance of its cells. The gaseous requirements for the functional survival of this tissue varies with the cyclical changes produced in the endometrium. In the proliferative phase the tissues require a high oxygen tension (60–80%) while in the secretory phase the tissues require a low oxygen tension (10–20%). In contrast to the proliferative endometrium the secretory endometrium cultivated under anaerobic conditions (5% CO_2 plus 95% N) for two days exhibits a normal appearing cellular architecture. Endometrium refrigerated for 3, 5, and 7 days at 4–5°C. in serum-Tyrodes or White's synthetic medium and then cultivated at 37°C. for three days showed a marked variation. The epithelial elements of the proliferative phase were morphologically normal while the cells of the secretory phase appeared necrotic. The effects of differences in the hydrogen ion