In our opinion, the appearances reported by Bowden and Lowy as multipolar and unipolar nerve cells are not nerve cells, but artefacts. This view is supported by the results of extirpation of the cerebral and visceral ganglions respectively; it is stated that after 60–70 hr., the nerve fibres of the adductors begin to degenerate and later disappear. If there were nerve cells in the adductors, only partial degeneration could occur, since removal of the ganglions would leave the assumed nerve cells and processes intact. Our photomicrographs show that there is no 'intrinsic' nervous system in the adductors.

Plexuses of different size and density consist of two kinds of fibres (Fig. 2). Both are richly branched, but without anastomosis. The extremely fine branches can be followed for a good distance, but they gradually become thinner and disappear without any special formations, as reported by A. Brück[4], and by Bowden and Lowy[1]. Quite fine granules or knobs can be observed at the ends of certain fibres with high-power magnification.

Statements that the nerve fibres run parallel to the longitudinal axis of the muscle fibres are based on erroneous observations. We find that, with a few exceptions, the nerve trunks and branches form an angle with the longitudinal axis of the muscle fibres; in our opinion the parallel fibres reported by Bowden and Lowy are not nerve fibres.

The myristoylcholine method of G. B. Koelle[5] is not suitable for demonstrating the innervation of lamellibranch muscles. The results of our investigations will be published in detail elsewhere.

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A Lipid Material in Bone and Teeth in Experimental Chronic Fluorosis

In experimental chronic fluorosis and in spontaneous fluorosis in man[1], many authors have observed peculiar dark blue granules in paraffin and celloidin sections of decalcified bone and teeth stained with hæmatoxylin-eosin (Fig. 1). It has been suggested that these could be either calcium fluoride[2,3] or merely a pathological calcification[4,5]. Examination of powdered material[6] from bone and teeth (rat), using X-ray diffraction, failed to detect any calcium fluoride. (The method used permitted detection of 0·5 per cent or more calcium fluoride in bone powder.)

Histochemical tests have shown that the granules appear periodic acid–Schiff positive. They do not stain metachromatically with toluidine blue, and the methylene blue extinction occurs about *p*H 3. Using phase-contrast microscopy (positive) they appear as glistening particles. Various sudan dyes in different solvents used on the decalcified paraffin sections show that the granules do not take up the red dyes, but very readily take up sudan black *B* dissolved in 70 per cent ethyl alcohol. After extraction with pyridine, there is no uptake of sudan black *B* though the outline of the extracted granules is still visible.

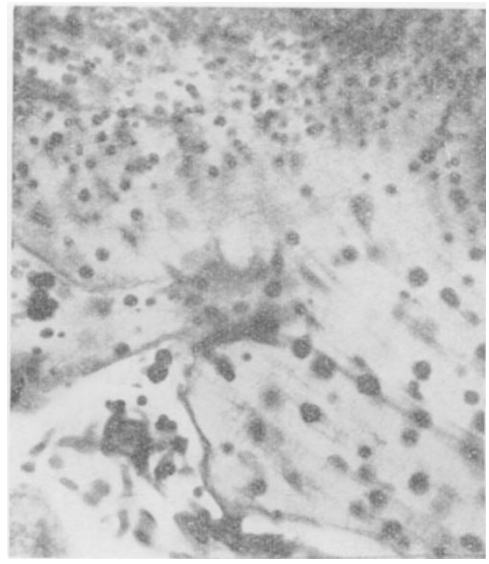

Fig. 1. Granules in terminal plate of epiphysis from rat femur. Decalcified paraffin section. Hæmatoxylin-eosin (× *c.* 260)

It is therefore suggested that the granules seen in decalcified paraffin sections consist mainly of a lipid material.

Further investigations using histochemical and X-ray diffraction methods are in progress.

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Colour Vision of Achromats' Parents

Two achromats, a woman student and a man student, were recently tested for colour vision. Both proved to be of the so-called pure rod-vision type[1], completely lacking in hue discrimination, with marked photophobia, nystagmus and central scotoma in photopic vision, and both had been totally colour blind since infancy.

Since there is evidence that red–green colour vision major defects often have heterozygous manifestations[2], we tested the parents of these achromats with the anomaloscope. Tables 1 and 2 summarize the

Table 1. The Achromats' Fathers

	Red–green test	Yellow–blue test
Man's father (age 62)	Green deviation: frequency, 13/209 men Matching range: frequency, 24/209 men	Deviation not abnormal Matching range normal
Woman's father (age 58)	Green deviation: frequency, 43/209 men Matching range: frequency, 14/209 men	Deviation not abnormal Matching range: frequency, 24/209 men