

large numbers in this medium if present in the feces. Transfers are made by removing a small portion of the sediment and transferring it to an uninoculated tube which should have been kept in the incubator at 37° C. Transfers are most successful if made every twenty-four or forty-eight hours, but successful transfers have been secured from an eight-day old culture, and motile amoebae have been found in cultures as old as eleven days. Transfers in this medium have been carried on in this laboratory for over two months and apparently may be continued indefinitely.

The excellent growth and reproduction of *Endamoeba histolytica* in this medium composed entirely of Locke's solution, slightly modified, and human, horse or rabbit inactivated blood serum, demonstrates that media containing a solid substratum containing egg albumen or blood is not essential for the cultivation of this species and that neither egg albumin nor blood is necessary as a part of the food supply of this amoeba, as stated by Kofoid and Wagener.² A more detailed description of our experience in the cultivation of *Endamoeba histolytica* in this medium, together with some account of the morphology and biology of the organism as observed under cultivation, will be published in the September number of the *American Journal of Tropical Medicine*.

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A RAPID METHOD FOR PREPARING THIN SECTIONS OF UNDECALCIFIED BONE

THE usual method of grinding slabs of bone between hones in order to prepare sections thin enough for microscopic examination is very laborious and requires more time than many workers are willing to devote to it. Equally satisfactory sections can be prepared with a great deal less labor and in a much shorter time by using files. It is possible to saw off and grind a radial slab 5 cm long or half of a transverse slab of ox femur within an hour.

Thin slabs of bone should be secured by sawing. Clamp a suitable piece of bone in a vice so that it projects 2 mm or 2.5 mm beyond the jaws. Avoid gripping it too tightly lest excessive strain cause microscopic cracks which will result in the section breaking up as it is ground thin. The jaws of the vice should be protected by straight-edged strips of metal to prevent damage by the saw. Saw off the slab with a hack saw, using the parallel edges of the metal guards as guides in order to secure a slab with parallel surfaces. With reasonable care a smooth

slab about a millimeter in thickness should result. Rub one surface of the slab on a twelve or fourteen inch flat mill file to remove any roughness due to the sawing. Attach the partially smoothed surface to the metal face of an old half-tone plate of suitable dimensions. This can be done by heating the plate in a flame and rubbing a piece of hard paraffin over it, then pressing the slab of bone into the molten paraffin. It is best to press it in by holding some object with a flat surface against it in order to insure uniform pressure over the entire area. Chill the paraffin while the slab is still under pressure by dashing cold water over it. Trim away any excess of wax and rub the slab on the file, using the half-tone plate as a holder. When a perfectly plane surface has been produced, polish it by rubbing for a few minutes on a flat hone. A hone that has been rendered concave by sharpening microtome knives is useless until it has been resurfaced. Very critical workers may wish to impart an additional polish by rubbing on a glass plate with optician's polishing powder. Reverse the slab on the plate and rub the other surface on the file until it is thin enough over its entire area to permit of seeing the etching on the plate beneath it. Polish the second surface in the same manner as the first. Loosen the section with xylol and transfer to a dish of xylol to remove the wax. If dust adheres, transfer successively to alcohol and water and wash carefully with soap. If it be desired to entrap air in the spaces between the bone cells, allow the section to dry and mount directly in melted balsam. If fully cleared sections be desired, dehydrate, clear and mount in the usual manner. If several mounts are to be made from one section, fine scissors should be used.

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SPECIAL ARTICLES

NOTE ON ARTERIOSCLEROSIS IN RABBITS CAUSED BY SOME SAMPLES OF URANIUM NITRATE¹

IN the course of some experiments that were being made to find whether or not the renal atrophy produced by uranium nitrate was accompanied by elevation of the blood pressure, there was found at autopsy in three rabbits which died in succession a severe arteriosclerosis of the aorta and of the peripheral vessels. In one animal the aorta appeared from the outside not unlike the trachea, this ring-like appearance extending into the carotids, subclavians, renals and iliaes, and even into the thyroid and para-

² Kofoid, C. A., and Wagener (1925), Univ. Cal. Pub. Zool., XXVIII, 136.

¹ From the H. K. Cushing Laboratory of Experimental Medicine, Western Reserve University, Cleveland, Ohio.