

Muller, Gulli Lindh
(Muller)

June 14, 1928.

My dear Doctor Muller:

In regard to the technique of fixing the blastoderms, if you want to preserve the hemoglobin, it is best to fix the films in the vapor formalin, for which take a small dish and put it inside a larger Petri dish, put the slide across the smaller one, and pour in a little 40 per cent straight formalin without dilution, cover and put the dish in a place warm enough - like over a radiator - to vaporize the formalin for 10 or 15 minutes. Then flood the preparation attached to the cover slip, on 70 per cent alcohol. If the fixation is sufficient, the preparation will cling to the glass.

In the further treatment, if you want to stain the blastoderms on the slide, keep them a short time in 80 per cent alcohol whether they have been fixed in Bouin or in formalin. Then run down the water and stain in hematoxylin. Watch the staining with the microscope and work for a good result in the area pellucida alone. The embryo itself is, of course, too thick to show. After it has been stained exactly right, run up through the alcohols, using at least three changes of absolute, for it is very important to get the preparation thoroughly dehydrated. Then clear in carbolxylol, then xylol, and finally mount in balsam. I think you will find this clearing much sharper than the benzene and oil of wintergreen.

The only point in the technique that is especially important, I think, is to be very careful not to leave the preparation too long in water and the lower alcohols. If the preparation once loosens from the cover slip, it is impossible ever to get it flat again. If you desire to make serial sections of the preparations, follow the technique, staining and all, exactly as given above, and then when the preparation has returned to the 95 per cent alcohol, take a Gillette blade and with one quick stroke, pressing always against the cover slip, sweep the preparation off under 95 per cent alcohol. Then it can be embedded in paraffin and cut.

There is always the difficulty of abnormal eggs as soon as hot weather comes, and the difficulty of non-fertile ones in the cold weather. I think it is important not to keep the eggs on ice. They are better gotten in very small lots and kept at room temperature before going into the incubator.

Very sincerely yours,

Florence R. Sabin.

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