

# Primary cell cultures from *Sepia officinalis* embryos : preliminary results

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*Sepia officinalis* is an emerging model in evo-devo but cellular techniques are currently missing. We aim to develop and characterize primary cultures from *S. officinalis* embryos as an experimental tool to better characterize the relationships between cell types during neuro-muscular development.

Different dissociation techniques and culture media derived from classical media (Leibovitz L-15, Medium 199) were tested. The best results were obtained after dissociation in 0.25 % collagenase and culture in a modified L-15 medium (~ 800 mOsm) on untreated plastic dishes. Cell adhesion was difficult but no significant amelioration was noted using gelatin-, laminin- or fibronectin-coated substrates.

In these conditions, cells from optic lobe (stage 25 to 30 after Lemaire) gave rise to neurite expansion, clearly suggesting their neuronal determination. Other cell types were observed in cell cultures from skin, mantle or arms; with the exception of pigmented cells derived from chromatophores or probable muscle cells, their cellular characterization remained largely uncertain.

This preliminary work is an encouraging starting point and should allow the establishment of reliable cultures from different *S. officinalis* cell types.