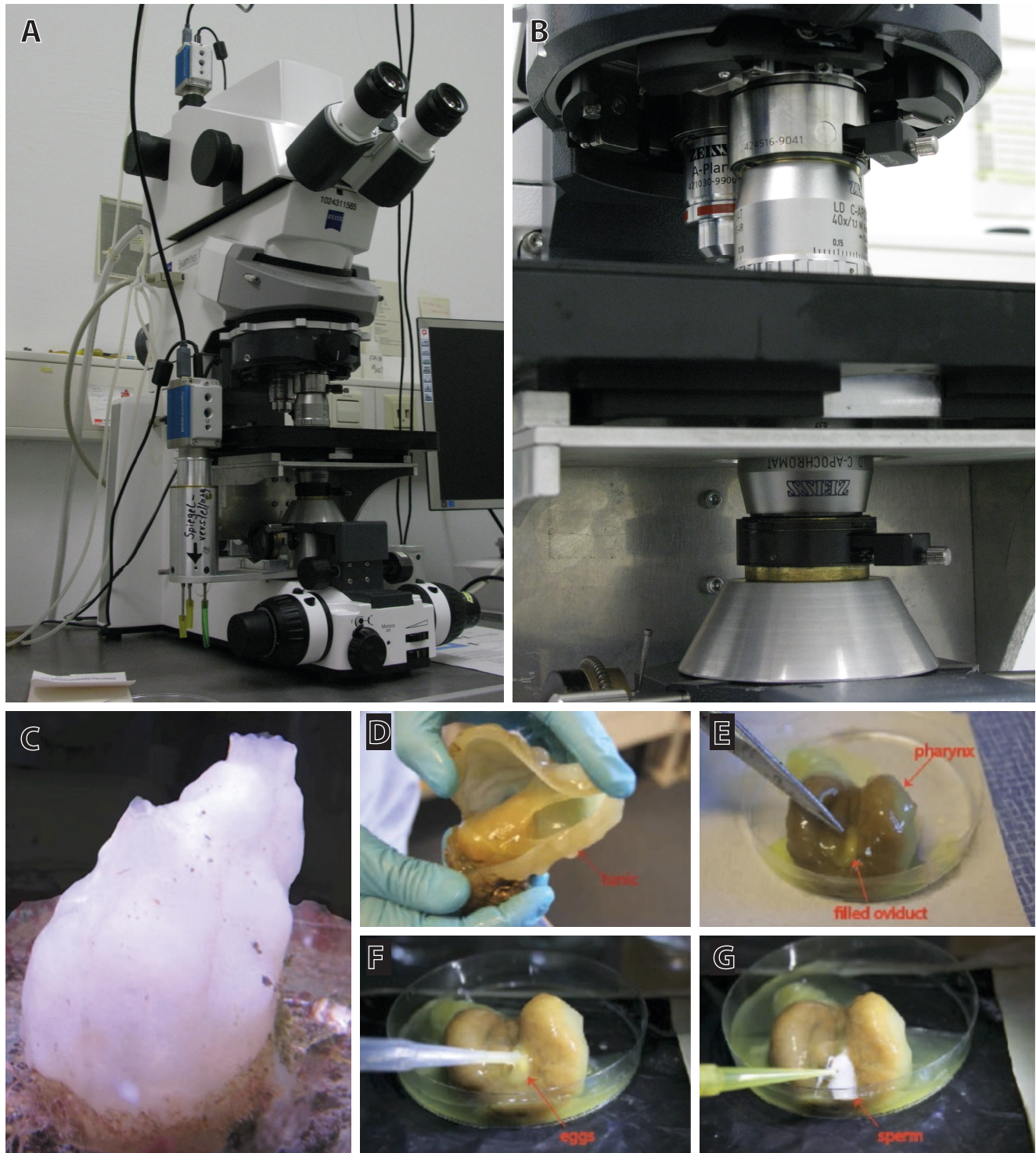




Supplementary Figure 15. A – Bifocal 4D-microscope. Note the two cameras on top of the microscope and to the left. Note also that the condensor is replaced by a second objective.

B – Higher magnification of the lower objective that replaces the condensor in the bifocal 4D-microscope. Starting with a 4-cell embryo or an 8 cell embryo, every 60 seconds 140 images from 70 planes 1.7 μm apart were recorded with the two cameras. A complete scan consisted of 1000 scans, resulting in a database comprising 140000 images. Of the resulting approximately 16 hours of development recorded, 8 hours were analyzed in detail. **C** – Adult *Phallusia mammillata*. **D-G** – Pictures of removal of gametes from a hermaphroditic *P. mammillata* individual during the fertilization process in the laboratory.

A higher resolution version of this figure is hosted on MorphDBase at:
www.morphdbase.de/?T_Stach_20151119-M-72.1