

Supplementary Figure 1

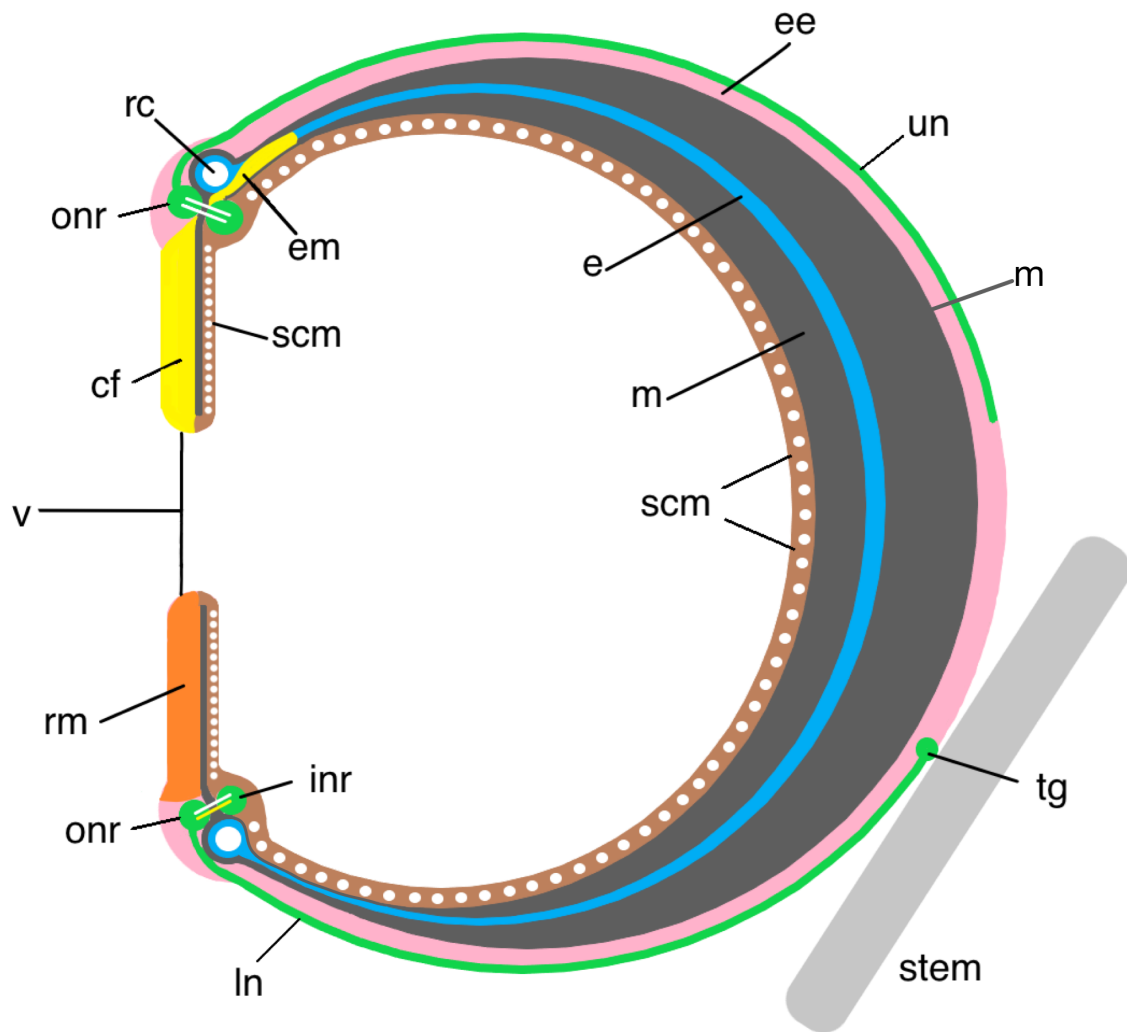


Diagram of a section through *Nanomia* nectophore at the level of the Claus' and endodermal muscles. The outer layer of the subumbrella is a myoepithelium (brown/white) consisting of epithelial cells connected by a neck to one or more striated circular muscle fibre “tails” (scm); a similar myoepithelium covers the inner surface of the velum (v). The exumbrella is covered by a simple epithelium (ee, pink). Both the exumbrella epithelium and the subumbrella myoepithelium have an ectodermal origin. The bell of the nectophore also contains a layer of jelly, the mesogloea (m, black), with a thin layer of endoderm (e, blue). The outer surface of the velum, part of the exumbrella ectoderm, is largely made up of unstriated radial muscle fibres (rm, orange) separated

from the subumbrella ectoderm by the thin mesogloea (black). Shown here at the top of the velum but in reality present in dorso-lateral positions to the right and left are Claus' fibres (cm, yellow), specialized radial smooth muscle fibres. Between the two layers of ectoderm lies the thin endoderm (e, blue). A ring canal (rc, white) lies within the endoderm; radial canals are also present but not shown. Endodermal radial muscles (em, yellow) are shown within the endoderm; they abut the Claus' fibres and attach to the mesogloea. A nerve ring encircles the velum near the ring canal; the outer nerve ring (onr, green) and inner nerve ring (inr, green) are separated by a thin mesogloea; neurites (white) cross the mesogloea to connect the two nerve rings. Upper (un, green) and lower (ln, green) nerve tracts join the outer nerve ring mid-way around the bell. The lower nerve tract runs to the terminal group of neurons (tg) at the stem attachment point; the fibres of the upper nerve tract terminate in the ectodermal epithelium. The diagram summarises much of the data presented in this paper but also includes findings based on electron microscopy (Jha & Mackie, 1967) and many earlier studies on the general anatomy of Hydrozoa.