

## Supplementary Table 1

### **Sodium Action Potentials in Placozoa: Insights into Behavioral Integration and Evolution of Nerveless Animals**

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**Supplementary Table 1:** Species used for comparative bioinformatic analysis and download links of their protein models (if not available in GenBank).

Species	Phyla	Download link (if not available in GenBank)
<i>Salpingoeca rosetta</i>	Choanoflagellata	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Salpingoeca+rosetta">https://www.ncbi.nlm.nih.gov/genome/?term=Salpingoeca+rosetta</a>
<i>Monosiga brevicollis</i>	Choanoflagellata	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Monosiga+brevicollis">https://www.ncbi.nlm.nih.gov/genome/?term=Monosiga+brevicollis</a>
<i>Mnemiopsis leydi</i>	Ctenophora	<a href="https://research.nhgri.nih.gov/mnemiopsis/download/download.cgi?dl=proteome">https://research.nhgri.nih.gov/mnemiopsis/download/download.cgi?dl=proteome</a>
<i>Pleurobrachia bachei</i>	Ctenophora	<a href="https://neurobase.rc.ufl.edu/Pleurobrachia/download">https://neurobase.rc.ufl.edu/Pleurobrachia/download</a>
<i>Amphimedon queenslandica</i>	Porifera	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Amphimedon+queenslandica">https://www.ncbi.nlm.nih.gov/genome/?term=Amphimedon+queenslandica</a>
<i>Ephydatia mulleri</i>	Porifera	<a href="https://spaces.facsci.ualberta.ca/ephybase/">https://spaces.facsci.ualberta.ca/ephybase/</a>
<i>Sycon ciliatum</i>	Porifera	<a href="https://datadryad.org/stash/dataset/doi:10.5061/dryad.tn0f3">https://datadryad.org/stash/dataset/doi:10.5061/dryad.tn0f3</a>
<i>Trichoplax adhaerens H1</i> (annotation V2)	Placozoa	<a href="https://genomeevolution.org/coge/SearchResults.pl?s=31909&amp;p=genome">https://genomeevolution.org/coge/SearchResults.pl?s=31909&amp;p=genome</a>
<i>Trichoplax sp. H2</i>	Placozoa	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Trichoplax+sp.+H2">https://www.ncbi.nlm.nih.gov/genome/?term=Trichoplax+sp.+H2</a>
<i>Hoiungia hongkongensis H13</i>	Placozoa	<a href="https://bitbucket.org/molpalmuc/hoilungia-genome/src/master/">https://bitbucket.org/molpalmuc/hoilungia-genome/src/master/</a>
<i>Hoilungia sp. H4</i>	Placozoa	own data, see See Supplement 2 for all sequences
<i>Nematostella vectensis</i>	Cnidaria	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Nematostella+vectensis">https://www.ncbi.nlm.nih.gov/genome/?term=Nematostella+vectensis</a>
<i>Stylophora pistillata</i>	Cnidaria	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Stylophora+pistillata">https://www.ncbi.nlm.nih.gov/genome/?term=Stylophora+pistillata</a>
<i>Hydra vulgaris</i>	Cnidaria	<a href="https://www.ncbi.nlm.nih.gov/genome/?term=Hydra+vulgaris">https://www.ncbi.nlm.nih.gov/genome/?term=Hydra+vulgaris</a>
<i>Clytia hemisphaerica</i>	Cnidaria	<a href="http://marimba.obs-vlfr.fr/downloads/">http://marimba.obs-vlfr.fr/downloads/</a>

<i>Morbakka virulenta</i>	Cnidaria	<a href="https://marinegenomics.oist.jp/morbakka_virulenta/viewer/info?project_id=70">https://marinegenomics.oist.jp/morbakka_virulenta/viewer/info?project_id=70</a>
<i>Aurelia aurita</i> (Atlantic)	Cnidaria	<a href="https://marinegenomics.oist.jp/aurelia_aurita/viewer/info?project_id=69">https://marinegenomics.oist.jp/aurelia_aurita/viewer/info?project_id=69</a>
<i>Aurelia aurita</i> (Pacific)	Cnidaria	<a href="https://marinegenomics.oist.jp/aurelia_aurita_pacific/viewer/info?project_id=75">https://marinegenomics.oist.jp/aurelia_aurita_pacific/viewer/info?project_id=75</a>
<i>Rhopilema esculentum</i>	Cnidaria	<a href="http://gigadb.org/dataset/view/id/100720/File_sort/format_id">http://gigadb.org/dataset/view/id/100720/File_sort/format_id</a>
<i>Chrysaora quinquecirrha</i>	Cnidaria	<a href="https://datadryad.org/stash/dataset/doi:10.5061/dryad.br15dv6c">https://datadryad.org/stash/dataset/doi:10.5061/dryad.br15dv6c</a>

