

Species-group	Species	Endoplasmic Reticulum					Golgi Apparatus					TGN	Endosomes/Lysosomes							Secretion					Polarized											
		Qa.I	Qb.I	Qc.I	R.I		Qa.II	Qb.II		Qc.II		R.II	Qa.III.a	Qa.III.b		Qb.III	Qc.III		R.III			Qa.IV	Qbc.IV			R.IV	R.Reg									
		Syx18	Sec20	Use1	Sec22	Sec22-like	Syx5	Memb	Gos28	Bet1	Gs15	Ykt6	Syx16	Syx7	Syx17	Syx20	Vti1a	Vti1b	Syx6	Syx8	Vamp7	Vamp7-like	Vamp4	Syx1	SNAP-25	SN25	SN29	SN47	Syb	Tom	Tomosyn	Lgl				
Choano-flagellata	<i>Monosiga ovata</i> <i>Monosiga brevicollis</i>	*			*		*	*	*	*	*	*	*			*	**	*	*	*	*	*	*	**	*	*	*	*	*	*	*	*	*			
Transition to multicellularity					Sec22	Sec22-like							Syx7	Syx17	Syx20	Vti1a	Vti1b			Vamp7	Vamp7-like	Vamp4		SN25	SN29	SN47				Tomosyn	Lgl					
Placozoa	<i>Trichoplax adhaerens</i>	*	*	*	*		*	*	*	*	*	*	*	*	*	**		*	*	**	*	*	****	**	*	*	**	*	*	*	*	*				
Cnidaria	<i>Nematostella vectensis</i> <i>Hydra magnipapillata</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	**		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			
Mollusca/Annelida	<i>Platynereis dumerilii</i> <i>Capitella sp. 1</i> <i>Helobdella robusta</i> <i>Euprymna scolopes</i> <i>Lottia gigantea</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Echino-dermata	<i>Strongylocentrotus purpuratus</i> <i>Paracentrotus lividus</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Urochordata	<i>Ciona intestinalis</i> <i>Molgula tectiformis</i> <i>Ciona savignyi</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Cephaloch. Chelicerata	<i>Branchiostoma floridae</i> <i>Boophilus microplus</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
Crustacea	<i>Daphnia pulex</i>	*	*	*	*	*	*	*	*	*	*	**	*	*	*	*	*	*	*	**	*	*	***	*	*	*	**	*	*	*	*	*	*			
Insecta	<i>Anopheles gambiae</i> <i>Drosophila melanogaster</i> <i>Drosophila pseudoobscura</i> <i>Apis mellifera</i> <i>Bombyx mori</i> <i>Tribolium castaneum</i> <i>Aedes aegypti</i> <i>Lutzomyia longipalpis</i> <i>Glossina morsitans</i> <i>Nasonia vitripennis</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	**	**	*	*	**	*	*	*	*	*	*		
Platyhel-minthes	<i>Schistosoma japonicum</i> <i>Schistosoma mansoni</i> <i>Schmidtea mediterranea</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	***	**	*	*	***	***	***	***	***	*	*		
Nematoda	<i>Caenorhabditis briggsae</i> <i>Caenorhabditis elegans</i> <i>Trichinella spiralis</i> <i>Brugia malayi</i>	*	*	*	*	*	*	**	*	*	*	*	*	*	*	*	*	*	*	**	*	*	****	*	*	*	***	****	****	****	****	*	*	*		
Rise of vertebrates					Sec22-like	Sec22-like2							Syx7	Syx13				Syx6	Syx10		Endo-brevin		Syx1-4, 21	Syx11	SN25a/b	SN23			Syb1-3	Myo-brevin	Tom1	Tom2	Ami	Lgl1	Lgl2	
Vertebrata	<i>Petromyzon marinus</i> <i>Xenopus laevis</i> <i>Xenopus tropicalis</i> <i>Canis familiaris</i> <i>Homo sapiens</i> <i>Mus musculus</i> <i>Rattus norvegicus</i> <i>Pan troglodytes</i> <i>Macaca mulatta</i> <i>Bos taurus</i> <i>Monodelphis domestica</i> <i>Equus caballus</i> <i>Gallus gallus</i> <i>Taeniopygia guttata</i> <i>Tetraodon nigroviridis</i> <i>Danio rerio</i> <i>Fugu rubripes</i> <i>Oryzias latipes</i> <i>Ictalurus punctatus</i> <i>Osmerus mordax</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

Suppl. Table 2 - Kloepper et al.