

Additional file 2: **ST8Sia family in ray-finned fish:** Accession numbers in GeneBank/EMBL are indicated for sialyltransferases identified in fish and in human. The pale pink background indicates the duplicated genes identified in fish and squamates. ST8Sia IV could not be identified (not id., pale green background) in the neognathi fish and ST8Sia VII was identified only in the cyprinidae and salmonidae fish and in the green lizard.

			ST8Sia I	ST8Sia II	ST8Sia III	ST8Sia III-r	ST8Sia IV	ST8Sia V	ST8Sia VI	ST8Sia VII
Mammals	Hominidae	<i>H. sapiens</i>	D26360	U33551	AF004668	Not id.	L41680	U91641	AJ621583	Not id.
Squamates	Iguanidae	<i>A. carolinensis</i>	AM503578	AM503579	AM503580	Not id.	AM503581	AM503582	AM503583	AM503584 AM503585
Ray-finned fish	Cyprinidae	<i>D. rerio</i>	AJ715535	AY055462	AJ715543	Not id.	AJ715545	AJ715546	AJ715551	AM287257 AM287258
	Neognathi	<i>T. nigroviridis</i>	AJ715536	AJ715537	AJ715539	AJ715540	Not id.	AJ715548	AM419016	Not id.
		<i>T. rubripes</i>	AJ715534	AJ715538	AJ715541	AJ715542	Not id.	AJ715547	AJ715549 AJ715550	Not id.
		<i>G. aculeatus</i>	AM422142	AM422139	AM422140	AM422141	Not id.	AM422135	AM419017	Not id.
		<i>O. latipes</i>	AJ871606	AM422134	AJ871607	AJ871608	Not id.	AJ871609	AM422138	Not id.
	Salmonidae	<i>O. mykiss</i>	partial	AB262976 AB262977	AB262974	Not id.	AB094402	partial	AB262975	AB262978