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Supporting Information

Additional Supporting Information may be found in the online version of this article:

Table S1. bHLH gene family nomenclature.

Table S2. Species distribution of bHLH homolog.

Fig. S1. Mouse bHLH super-tree for the 5 different clades and all 107 genes with the cellular expression of specific genes listed for Sertoli, Schwann, thymic and

muscle cells. The expression is shown in the pie chart diagrams for each gene.

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Supplemental Table S1
bHLH Gene Family Nomenclature

New name	Current name	GenBank #	Subtree
bHLHa1	H-NEUROD2	NP006151	1
bHLHa1	H-NEURODRF	BAA77569	1
bHLHa1	M-NEUROD2	Q62414	1
bHLHa1	R-NEUROD2	NP062199	1
bHLHa2	H-MYO51	AAG43167	1
bHLHa2	H-NEX1	AAP97259	1
bHLHa2	H-NEUROD6	NP073565	1
bHLHa2	R-NEX1	XP575489	1
bHLHa3	H-BETA2	BAA36519	1
bHLHa3	H-NEUROD1	NP002491	1
bHLHa3	M-NEUROD1	NP035024	1
bHLHa3	R-NEUROD1	NP062091	1
bHLHa3	M-UPP	BAC25725	1
bHLHa3	M-NEUROD(e)	AAC52203	1
bHLHa3	H-NEUROD(e)	AAC51318	1
bHLHa4	H-NEUROD4	NP067014	1
bHLHa4	M-NEUROD4	NP031527	1
bHLHa4	R-ATOH3H	XP222370	1
bHLHa5	C-C34E107	NP498115	1
bHLHa6	H-NEUROD3(e)	AAB37575	1
bHLHa6	H-NEUROG1	NP006152	1
bHLHa6	M-NEUROG1	NP035026	1
bHLHa6	R-NEUROD3	NP062080	1
bHLHa7	H-NEUROG3	NP066279	1
bHLHa7	H-UNK3	AAH74939	1
bHLHa7	M-NEUROG3	NP033849	1
bHLHa7	R-NEUROG3	NP067732	1
bHLHa8	H-NEUROG2	NP076924	1
bHLHa8	M-NEUROG2	NP033848	1
bHLHa8	R-UNK3(e)	XP227716	1
bHLHa9	C-C44C108	NP509952	1
bHLHa9	D-CG5005	NP477302	1
bHLHa9	C-T24B86	NP495938	1
bHLHa9	C-T05G52	NP499150	1
bHLHa9	M-UNK2(e)	CAI25286	1
bHLHa10	D-CG10393	NP477446	1
bHLHa10	C-C28C128	NP501445	1
bHLHa10	C-T14F95	NP508410	1
bHLHa10	D-CG7508	NP731223	1
bHLHa11	C-C02B84	NP509367	1
bHLHa11	C-Y69E1A3	NP500236	1

bHLHa12	D-CG7760	NP477344	1
bHLHa13	H-ATOH7	NP660161	1
bHLHa13	M-ATOH7	NP058560	1
bHLHa13	R-MATH5(e)	XP345103	1
bHLHa14	H-ATOH1	NP005163	1
bHLHa14	M-ATOH1	NP031526	1
bHLHa15	H-MIST1	NP803238	1
bHLHa15	M-MIST1	NP034930	1
bHLHa15	R-MIST1	NP036995	1
bHLHa16	D-CG8667	NP523611	1
bHLHa17	H-SCL(e)	AAA36598	1
bHLHa17	H-TAL1	NP003180	1
bHLHa17	M-SCL(e)	CAB72256	1
bHLHa17	M-TAL1	NP035657	1
bHLHa17	R-SCL(e)	XP233430	1
bHLHa18	H-UNK1(e)	AAA88084	1
bHLHa18	H-LYL1	NP005574	1
bHLHa18	M-LYL2(e)	B43814	1
bHLHa18	M-UNK1(e)	BAC36194	1
bHLHa18	M-LYL1	NP032561	1
bHLHa19	H-TAL2	NP005412	1
bHLHa19	R-TAL2(e)	XP345532	1
bHLHa19	M-TAL2	NP033343	1
bHLHa20	D-CG2655	NP525055	1
bHLHa21	H-ATOH8	NP116216	1
bHLHa21	M-ATOH8	NP722473	1
bHLHa21	R-MATH6	XP575552	1
bHLHa21	M-UNK3(e)	BAC25499	1
bHLHa22	H-MUSC(e)	AAH06313	1
bHLHa22	H-MUSC	NP005089	1
bHLHa22	M-MUSC	NP034957	1
bHLHa22	R-MUSC	XP232587	1
bHLHa23	H-TCF21	NP938206	1
bHLHa23	M-TCF21	NP035675	1
bHLHa23	R-COR1(e)	XP341738	1
bHLHa24	H-TCF23	XP372923	1
bHLHa24	M-TCF23	NP444315	1
bHLHa24	R-OUT(e)	XP345644	1
bHLHa25	H-UNK2(e)	DAA00306	1
bHLHa25	R-UNK2	XP578439	1
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bHLHa26	R-HAND2	NP073187	1
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bHLHa26	M-DHAND(e)	AAC52338	1
bHLHa26	M-HED(e)	AAA86274	1

bHLHa27	H-HAND1	NP004812	1
bHLHa27	M-HXT(e)	AAA86273	1
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bHLHa27	R-HAND1	NP067603	1
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bHLHa29	M-PTFlA	NP061279	1
bHLHa29	R-PTF1A	NP446416	1
bHLHa30	D-CG33323	NP996177	1
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bHLHa32	D-CG6913	NP524322	1
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bHLHa33	D-CG5952	NP524376	1
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bHLHa34	R-NESC(e)	XP227524	1
bHLHa35	H-NHLH1	NP005589	1
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bHLHa35	R-UNK1(e)	XP222898	1
bHLHa36	D-CG3052	NP476989	1
bHLHa37	C-C43H68	NP508440	1
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bHLHa38	M-TWIST1	NP035788	1
bHLHa38	R-TWIST1	NP445982	1
bHLHa39	H-TWIST2(e)	AAH33168	1
bHLHa39	M-TWIST2	NP031881	1
bHLHa40	H-TCF15	NP004600	1
bHLHa40	M-TCF15	NP033354	1
bHLHa40	R-TCF15(e)	XP230722	1
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bHLHa41	M-SCX	NP942588	1
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bHLHa42	R-PUTBHLH(e)	BAB83912	1
bHLHa43	C-F57C123	NP508119	1
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bHLHa44	R-ASCL4(e)	XP235013	1
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bHLHc2	H-MYF5	NP005584	3
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bHLHc6	M-MESP2	NP032615	3
bHLHc6	R-MESP2(e)	XP218825	3
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bHLHc8	M-FIGLA	NP036143	3
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bHLHc10	D-CG441	NP524516	3
bHLHc11	H-MXI1a	NP005953	3
bHLHc11	H-MXI1b	NP569157	3
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bHLHc14	D-CG8346	NP524509	3
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bHLHc21	D-CG5927	NP525094	3
bHLHc22	C-T01E82	NP496204	3
bHLHc23	H-HES6	NP061115	3
bHLHc24	H-HES2	CAB46199	3
bHLHc25	C-Y54G2A1	NP500281	3
bHLHc26	A-BHLH37	NP563749	3
bHLHc26	A-BHLH38	NP181843	3
bHLHc26	A-BHLH36	NP181757	3
bHLHc27	A-UNK4	NP683482	3
bHLHc28	C-C18A38	NP495131	3
bHLHc28	D-CG3786	NP476694	3
bHLHc28	D-CG3839	NP476623	3
bHLHc28	D-CG3827	NP476803	3
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bHLHc30	A-BHLH33	NP569014	3
bHLHc31	A-BHLH32	NP177064	3
bHLHc31	A-BHLH31	NP198702	3
bHLHc32	A-BHLH30	NP175518	3
bHLHc32	A-BHLH29	NP567431	3
bHLHc33	A-BHLH28	NP568850	3
bHLHc33	A-BHLH27	NP201335	3
bHLHc34	C-DY33	NP492372	3
bHLHc34	C-F38C22	NP502928	3
bHLHc35	A-BHLH26	NP175399	3
bHLHc35	A-BHLH25	NP199178	3
bHLHc36	A-EXP7	NP201239	3
bHLHc36	A-EXP6	NP199812	3
bHLHc37	S-INO2	NP010408	3
bHLHc37	S-PHO4	NP116692	3

bHLHc38	A-TIF	AAK96799	3
bHLHc38	A-HYP1	CAB71865	3
bHLHc39	A-BHLH24	NP196430	3
bHLHc40	A-BHLH23	NP200609	3
bHLHc41	M-TFAP4	NP112459	3
bHLHc42	D-CG11450	NP524820	3
bHLHc43	A-PP-1	CAB79132	3
bHLHc44	A-BHLH22	NP195330	3
bHLHc45	S-RTG1	NP014574	3
bHLHc46	C-F40G911	NP497173	3
bHLHc47	A-PIF3-2	BAC10690	3
bHLHc48	C-M05B55	NP492034	3
bHLHc49	A-UNK3	AAM67566	3
bHLHc50	A-P50	NP195468	3
bHLHc51	A-EXP5	NP194747	3
bHLHc52	A-EXP4	NP563839	3
bHLHc52	A-EXP3	NP566260	3
bHLHc53	A-BHLH20	NP196537	3
bHLHc53	A-BHLH21	NP191923	3
bHLHc54	A-BHLH19	NP172483	3
bHLHc54	A-BHLH18	NP189011	3
bHLHc55	A-BHLH17	NP195179	3
bHLHc56	A-BHLH16	NP568745	3
bHLHc56	A-BHLH15	NP177524	3
bHLHc57	A-BHLH14	NP201067	3
bHLHd1	H-SREBF1A	NP001005291	4
bHLHd1	H-SREBF1B	NP004167	4
bHLHd1	M-SREBF1	NP035610	4
bHLHd1	R-ADD1	A48085	4
bHLHd1	R-SREBP1C	AAG28734	4
bHLHd2	H-SREBF2	NP004590	4
bHLHd2	M-SREBF2	XP127995	4
bHLHd3	H-MNT	Q99583	4
bHLHd3	M-MNT	CAI24246	4
bHLHd4	H-MAXD	NP660089	4
bHLHd5	H-MAXF	NP932061	4
bHLHd6	H-MAXA	NP002373	4
bHLHd6	M-MAX	NP032584	4
bHLHd6	H-MAXB	NP660087	4
bHLHd7	H-MAXC	NP660088	4
bHLHd8	H-MAXE	NP660092	4
bHLHd9	D-CG9648	NP649097	4
bHLHd10	C-F46G106	NP510223	4
bHLHd11	C-F38A63	NP505856	4
bHLHd12	D-CG18362A	NP724325	4

bHLHd12	D-CG18362B	NP610105	4
bHLHd12	D-CG18362C	NP724326	4
bHLHd12	D-CG18362E	NP724327	4
bHLHd12	D-CG18362D	NP724328	4
bHLHd13	M-TCFL4	NP035680	4
bHLHd13	H-WBSCR14	NP937848	4
bHLHd13	D-CG3350	NP651556	4
bHLHe1	H-ARNT2	NP055677	5
bHLHe1	R-ARNT2	NP036913	5
bHLHe1	M-ARNT2	NP031514	5
bHLHe2	H-ARNT	CAI12797	5
bHLHe2	M-ARNT	NP033839	5
bHLHe2	R-ARNT	NP036912	5
bHLHe3	C-C25A111	NP492687	5
bHLHe4	D-CG11987	NP731308	5
bHLHe5	H-ARNTL	NP001169	5
bHLHe5	M-ARNTL	NP031515	5
bHLHe5	R-ARNTL	NP077338	5
bHLHe6	H-ARNTL2	NP064568	5
bHLHe6	M-ARNTL2	NP758513	5
bHLHe7	D-CG8727	NP524168	5
bHLHe8	H-CLOCK	O15516	5
bHLHe8	M-CLOCK	NP031741	5
bHLHe8	R-CLOCK	NP068628	5
bHLHe9	H-NPAS2	Q99743	5
bHLHe9	M-NPAS2	NP032745	5
bHLHe10	D-CG7391	NP996021	5
bHLHe11	H-NPAS1	NP002508	5
bHLHe11	M-NPAS1	NP032744	5
bHLHe12	H-NPAS3	NP775182	5
bHLHe12	M-NPAS3	NP038808	5
bHLHe13	D-CG6883	NP523872	5
bHLHe14	H-SIM1	NP005059	5
bHLHe14	M-SIM1	NP035506	5
bHLHe15	H-SIM2	NP005060	5
bHLHe15	M-SIM2	NP035507	5
bHLHe16	D-CG7771	NP731771	5
bHLHe17	H-HIF3A	NP690007	5
bHLHe17	M-HIF3A	NP058564	5
bHLHe17	R-HIF3A	NP071973	5
bHLHe17	H-EPAS1	NP001421	5
bHLHe18	C-41G75	NP492530	5
bHLHe19	H-BHLHB1(e)	AAF61215	5
bHLHe19	M-OLIG2	NP058663	5
bHLHe19	R-OLIG2(e)	XP221668	5

bHLHe19	H-OLIG2	NP005797	5
bHLHe20	H-OLIG3	CAI20348	5
bHLHe20	M-OLIG3	NP443734	5
bHLHe20	R-OLIG3(e)	XP218772	5
bHLHe21	H-OLIG1VAR(e)	BAD93028	5
bHLHe21	M-OLIG1	NP058664	5
bHLHe21	R-OLIG1	NP068538	5
bHLHe21	H-OLIG1	NP620450	5
bHLHe22	H-BHLHB5	NP689627	5
bHLHe22	M-BHLHB5	NP067535	5
bHLHe22	R-BETA2	XP345191	5
bHLHe23	H-BHLHB4	CAD37449	5
bHLHe23	M-BHLHB4	NP542372	5
bHLHe24	A-BHLH70	NP180680	5
bHLHe24	A-BHLH71	NP180679	5
bHLHe25	A-BHLH69	NP177366	5
bHLHe25	A-BHLH68	NP189056	5
bHLHe26	A-BHLH67	NP176552	5
bHLHe26	A-BHLH66	NP680372	5
bHLHe27	A-MYC	NP191957	5
bHLHe28	A-BHLH65	NP192720	5
bHLHe29	A-BHLH64	NP179283	5
bHLHe29	A-BTF	AAC64222	5
bHLHe30	A-BHLH63	NP195520	5
bHLHe31	A-BHLH60	NP199495	5
bHLHe31	A-BHLH62	NP193376	5
bHLHe31	A-BHLH61	NP567195	5
bHLHe31	A-BHLH59	NP195791	5
bHLHe32	H-MITF	I38024	5
bHLHe32	M-MITF	NP032627	5
bHLHe32	R-MITF	XP232215	5
bHLHe33	H-TCFE3	NP006512	5
bHLHe33	M-TCFE3	NP766060	5
bHLHe34	H-TCFEC	NP036384	5
bHLHe34	M-TCFEC	NP112475	5
bHLHe35	H-TFEB	NP009093	5
bHLHe35	M-TCFEB	NP035679	5
bHLHe36	H-MONDOA	NP055753	5
bHLHe36	M-WBSCR14	NP067430	5
bHLHe37	H-MYCN	P04198	5
bHLHe37	R-MYCS	NP068609	5
bHLHe37	M-NMYC1	NP032735	5
bHLHe38	H-MYCL1	P12524	5
bHLHe38	M-LMYC1	P10166	5
bHLHe39	H-MYC	NP002458	5

bHLHe39	M-MYC	P01108	5
bHLHe39	R-MYC	NP036735	5
bHLHe40	H-BHLHB2	NP003661	5
bHLHe40	M-BHLHB2	NP035628	5
bHLHe40	R-BHLHB2	NP445780	5
bHLHe41	R-BHLHB3	NP579837	5
bHLHe41	M-BHLHB3	NP077789	5
bHLHe41	H-BHLHB3	NP110389	5
bHLHe42	H-NCOA11	NP003734	5
bHLHe42	H-NCOA13	NP671766	5
bHLHe42	H-NCOA12	NP671756	5
bHLHe42	M-NCOA1	NP035011	5
bHLHe42	H-NCOA3	CAI42141	5
bHLHe43	D-CG13316A	NP570071	5
bHLHe43	D-CG13316B	NP726879	5
bHLHe44	D-CG1194	NP523657	5
bHLHe45	A-ERFP	NP194639	5
bHLHe46	C-C17C31	NP495065	5
bHLHe46	C-C17C37	NP495063	5
bHLHe47	C-F31A32	NP510838	5
bHLHe47	C-F31A34	NP510837	5
bHLHe48	A-BHLH58	NP200506	5
bHLHe48	A-T10024	AAD39586	5
bHLHe49	D-CG17100	NP524775	5
bHLHe50	D-CG8704	NP476923	5
bHLHe51	D-CG10446	NP523599	5
bHLHe52	A-EXP9	NP189001	5
bHLHe53	A-BHLH57	NP188770	5
bHLHe54	A-CDP	NP565839	5
bHLHe55	A-PTF-5	AAM10949	5
bHLHe56	D-CG7951	NP524584	5
bHLHe57	D-CG10798	NP525062	5
bHLHe58	A-PIF3-3	NP849626	5
bHLHe59	D-CG1705	NP511126	5
bHLHe60	A-BHLH56	NP172746	5
bHLHe61	A-ERPR4	NP174087	5
bHLHe62	A-ERPR3	NP188700	5
bHLHe63	D-CG7664	NP476605	5
bHLHe64	C-Y7D3B7	NP499472	5
bHLHe65	S-RTG3	NP009447	5
bHLHe66	S-HMS1	NP014675	5
bHLHe67	A-PUT3	CAB86924	5
bHLHe68	A-BHLH55	NP195372	5
bHLHe68	A-PTF-4	AAN18284	5
bHLHe68	A-BHLH54	NP849508	5

bHLHe69	A-EXP8	AAD15506	5
bHLHe70	A-BHLH53	NP173950	5
bHLHe70	A-BHLH52	NP177058	5
bHLHe71	A-BHLH51	NP187390	5
bHLHe71	A-BHLH50	NP199667	5
bHLHe72	A-BHLH49	NP180003	5
bHLHe72	A-BHLH48	NP194827	5
bHLHe72	A-BHLH47	NP567245	5
bHLHf1	A-PP-2	CAA22971	6
bHLHf1	A-PTF-8	CAD58595	6
bHLHf2	A-BHLH86	NP194608	6
bHLHf2	A-BHLH85	NP974634	6
bHLHf3	A-PTF-7	CAE12173	6
bHLHf4	A-BHLH84	NP179608	6
bHLHf4	A-BHLH83	NP849996	6
bHLHf5	A-AT	AAS79546	6
bHLHf5	A-BHLH82	NP200935	6
bHLHf5	A-HYP3	CAG25857	6
bHLHf5	A-UNK6	BAB08482	6
bHLHf5	A-PTF-6	AAP86213	6
bHLHf6	A-BHLH81	NP201512	6
bHLHf6	A-PBHLH2	BAD43719	6
bHLHf6	A-UNK5	AAM61195	6
bHLHf6	A-SPT	NP568010	6
bHLHf7	A-BHLH80	NP182220	6
bHLHf7	A-HYP2	AAO37214	6
bHLHf7	A-HFR1	NP563650	6
bHLHf7	A-PBHLH1	BAC41923	6
bHLHf8	A-BHLH79	NP174776	6
bHLHf8	A-BHLH78	NP192657	6
bHLHf9	A-BHLH77	NP191916	6
bHLHf10	A-BHLH76	NP182204	6
bHLHf10	A-BHLH75	NP567121	6
bHLHf10	A-BHLH73	NP187263	6
bHLHf10	A-BHLH72	NP200133	6
bHLHf10	A-BHLH74	NP192055	6

Supplemental Table S2
Species Distribution of bHLH Homologs

Names	Human	Rat	Mouse	Drosophila	C. Elegans	Yeast	Arabidopsis
bHLHa1	Neurod2, Neurodrf	Neurod2	Neurod2				
bHLHa2	Myo51, Nex1, Neurod6	Nex1					
bHLHa3	Beta2, Neurod1, Neurod(e)	Neurod1	Neurod1, Upp, Neurod(e)				
bHLHa4	Neurod4	Atoh3h	Neurod4				
bHLHa5					C34E107		
bHLHa6	Neurod3(e), Neurog1	Neurod3	Neurog1				
bHLHa7	Neurog3, Unk3	Neurog3	Neurog3				
bHLHa8	Neurog2	Unk3(e)	Neurog2				
bHLHa9			Unk2(e)	CG5005	C44C108, T24B86, T05G52		
bHLHa10				CG10393, CG7508	C28C128, T14F95		
bHLHa11					C02B84, Y69E1A3		
bHLHa12				CG7760			
bHLHa13	Atoh7	Math5(e)	Atoh7				
bHLHa14	Atoh1		Atoh1				
bHLHa15	Mist1	Mist1	Mist1				
bHLHa16				CG8667			
bHLHa17	Scl(e), Tal1	Scl(e)	Tal1, Scl(e)				
bHLHa18	Unk1(e), Lyl1		Lyl2(e), Unk1(e), Lyl1				
bHLHa19	Tal2	Tal2(e)	Tal2				
bHLHa20				CG2655			
bHLHa21	Atoh8	Math6	Atoh8, Unk3(e)				
bHLHa22	Musc(e), Musc	Musc	Musc				
bHLHa23	Tcf21	Tcf21	Cor1(e)				
bHLHa24	Tcf23	Tcf23	Out(e)				
bHLHa25	Unk2(e)	Unk2					
bHLHa26	Hand2	Hand2	Hand2, Dhand(e), Hed(e)				
bHLHa27	Hand1	Hand1	Hand1, Hxt(e)				
bHLHa28				CG18144			

bHLHa29	Ptf1	Ptf1a	Ptf1a				
bHLHa30				CG33323			
bHLHa31		Fer3(e)	Ferd3I				
bHLHa32				CG6913			
bHLHa33				CG5952	F48D63		
bHLHa34	Nhlh2	Nesc(e)	Nhlh2, Hen2				
bHLHa35	Nhlh1	Unk1(e)	Nhlh1				
bHLHa36				CG3052			
bHLHa37					C43H68		
bHLHa38	Twist	Twist1	Twist1				
bHLHa39	Twist2(e)		Twist2				
bHLHa40	Tcf15	Tcf15(e)	Tcf15				
bHLHa41	Scx		Scx				
bHLHa42	Ascl3	Putbhlh(e)	Ascl3				
bHLHa43					F57C123		
bHLHa44	Ascl4	Ascl4(e)					
bHLHa45	Ascl2	Ascl2	Ascl2				
bHLHa46	Ascl1	Ascl1	Ascl1				
bHLHb1							Bhlh13, Pif3-1, Put2, Put1, Ptf-1
bHLHb2							Pif4-2, Pif4-1, Unk2
bHLHb3							Bhlh12, Bhlh11
bHLHb4							Bhlh10, Bhlh9
bHLHb5							Bhlh8, Bhlh7
bHLHb6							Bhlh6, Bhlh5
bHLHb7							Exp2, Unk1
bHLHb8							Bhlh4, F17
bHLHb9							Erpr2
bHLHb10							Bhlh3, Erpr1
bHLHb11	Usf1	Usf1	Usf1				
bHLHb12	Usf2	Usf2					
bHLHb13				CG17592A, CG17592B			
bHLHb14					T01D32		Bhlh2
bHLHb15						CBF1	
bHLHb16						TYE7	
bHLHb17				CG2956			
bHLHb18					T15H93		
bHLHb19	Sef21a(e), Tcf4	Mitf2(e), Tcf4	Sef2(e), Tcf4, Me2(e)				
bHLHb20	Tcf4c(e),	Tcf12,	Tcf12				

	Tcf12	Reb3(e), Rebox(e)					
bHLHb21	E47(e), Kappae2bf(e), Tcf3	Pan1(e), Tcfe2a(e), Tcfe12(e)	Tcfin(e), Tcfe2a, E2a				
bHLHb22				CG5102			
bHLHb23				CG5545			
bHLHb24	Id1a, Id1b	Id1	Id1				
bHLHb25	Id3	Id3	Id3				
bHLHb26	Id2	Id2	Id2				
bHLHb27	Id4	Id4	Id4				
bHLHb28				CG1007			
bHLHb29							Bhlh1
bHLHb30							Exp1
bHLHb31	Hey1		Hey1				
bHLHb32	Hey2		Hey2				
bHLHb33	Heyl		Heyl				
bHLHb34				CG14548, CG8333			
bHLHb35				CG8361			
bHLHb36				CG6096, CG8365			
bHLHb37	Hes7	Hes3	Hes3, Hes7				
bHLHb38		Hes5	Hes5				
bHLHb39	Hes1, Hes4	Hes1	Hes1				
bHLHb40		Hes2	Hes2				
bHLHc1	Myf3(e), Myod	Myod1	Myod1				
bHLHc2	Myf5	Myf5(e)	Myf5				
bHLHc3	Myf4(e)	Myog	Myog				
bHLHc4	Myf6	Myf6	Myf6				
bHLHc5	Mp1	Mesp1	Mesp1				
bHLHc6		Mesp2(e)	Mesp2				
bHLHc7				CG12952a, CG12952b			Bhlh46
bHLHc8	GA		Fig1a				
bHLHc9				CG7659			
bHLHc10				CG441			
bHLHc11	Mxi1a, Mxi1b	Mxi1	Mxi1, Mad				
bHLHc12	Mad4		Mad4, Mxd4				
bHLHc13	Mxd3	Mxd3	Mxd3				
bHLHc14				CG6494, CG8328, CG8346			
bHLHc15					R03E91		
bHLHc16							Bhlh45, Ptf-3, Ptf-2

bHLHc17							Pad, Bhlh44
bHLHc18							F0
bHLHc19							Bhlh43 Bhlh42, Bhlh41, Bhlh40
bHLHc20							Bhlh39
bHLHc21				CG5927			
bHLHc22					T01E82		
bHLHc23	Hes6						
bHLHc24	Hes2						
bHLHc25					Y54G2A1		
bHLHc26							Bhlh37, Bhlh38, Bhlh36
bHLHc27							Unk4
bHLHc28				CG3786, CG3839, CG3827	C18A38		
bHLHc29							Bhlh34, Bhlh35
bHLHc30							Bhlh33
bHLHc31							Bhlh32, Bhlh31
bHLHc32							Bhlh30, Bhlh29
bHLHc33							Bhlh28, Bhlh27
bHLHc34					DY33, F38C22		
bHLHc35							Bhlh26, Bhlh25
bHLHc36							Exp7, Exp6
bHLHc37						INO2, PHO4	
bHLHc38							Tif, Hyp1
bHLHc39							Bhlh24
bHLHc40							Bhlh23
bHLHc41			Tfap4				
bHLHc42				CG11450			
bHLHc43							PP-1
bHLHc44							Bhlh22
bHLHc45						RTG1	
bHLHc46					F40G911		
bHLHc47							Pif3-2
bHLHc48					M05B55		
bHLHc49							Unk3
bHLHc50							P50
bHLHc51							Exp5

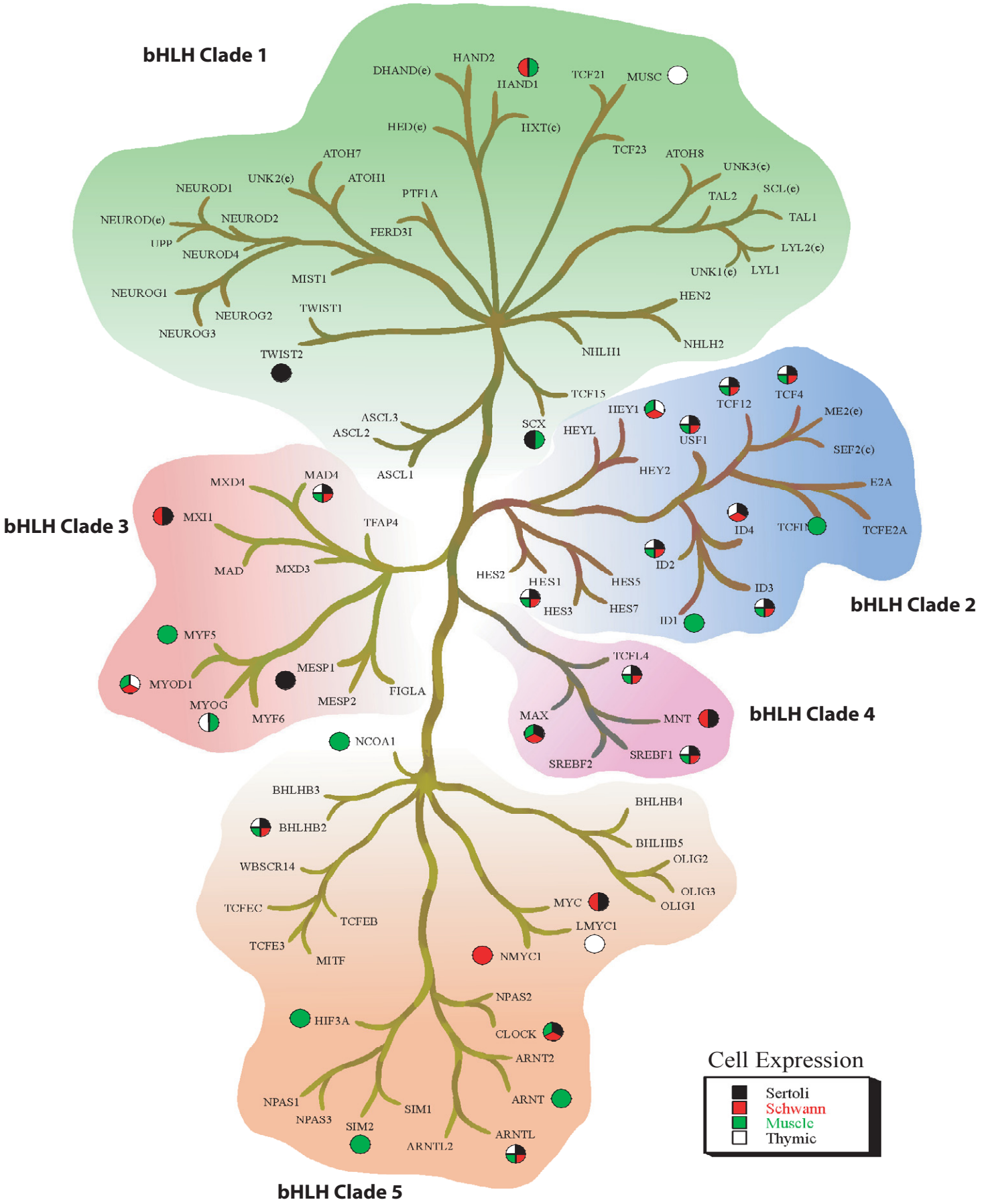
bHLHc52							Exp4, Exp3
bHLHc53							Bhlh20, Bhlh21
bHLHc54							Bhlh19, Bhlh18
bHLHc55							Bhlh17
bHLHc56							Bhlh16, Bhlh15
bHLHc57							Bhlh14
bHLHd1	Srebf1a, Srebf1b	Add1, Srebp1c	Srebf1				
bHLHd2	Srebf2		Srebf2				
bHLHd3	Mnt		Mnt				
bHLHd4	Maxd						
bHLHd5	Maxf						
bHLHd6	Maxa, Max, Maxb						
bHLHd7	Maxc						
bHLHd8	Maxe						
bHLHd9				CG9648			
bHLHd10					F46G106		
bHLHd11					F38A63		
bHLHd12				CG18362a, CG18362b, CG18362c, CG18362e, CG18362d			
bHLHd13	Wbscr14		Tcfl4	CG3350			
bHLHe1	Arnt2	Arnt2	Arnt2				
bHLHe2	Arnt	Arnt	Arnt				
bHLHe3					C25A111		
bHLHe4				CG11987			
bHLHe5	Arntl	Arntl	Arntl				
bHLHe6	Arntl2		Arntl2				
bHLHe7				CG8727			
bHLHe8	Clock	Clock	Clock				
bHLHe9	Npas2		Npas2				
bHLHe10				CG7391			
bHLHe11	Npas1		Npas1				
bHLHe12	Npas3		Npas3				
bHLHe13				CG6883			
bHLHe14	Sim1		Sim1				
bHLHe15	Sim2		Sim2				
bHLHe16				CG7771			
bHLHe17	Hif3a, Epas1	Hif3a	Hif3a				
bHLHe18					41G75		
bHLHe19	Bhlh1(e), Olig2	Olig2(e)	Olig2				

bHLHe20	Olig3	Olig3(e)	Olig3				
bHLHe21	Olig1var(e), Olig1	Olig1	Olig1				
bHLHe22	Bhlhb5	Beta2	Bhlhb5				
bHLHe23	Bhlhb4		Bhlhb4				
bHLHe24							Bhlh70, Bhlh71
bHLHe25							Bhlh69, Bhlh68
bHLHe26							Bhlh67, Bhlh66
bHLHe27							Myc
bHLHe28							Bhlh65
bHLHe29							Bhlh64, Btf
bHLHe30							Bhlh63
bHLHe31							Bhlh60, Bhlh62, Bhlh61, Bhlh59
bHLHe32	Mif	Mitf	Mitf				
bHLHe33	Tcfe3		Tcfe3				
bHLHe34	Tcfec		Tcfec				
bHLHe35	Tfeb		Tcfeb				
bHLHe36	Mondoa		Wbscr14				
bHLHe37	Mycn	Mycs	Nmyc1				
bHLHe38	Mycl1		Lmyc1				
bHLHe39	Myc	Myc	Myc				
bHLHe40	Bhlhb2	Bhlhb2	Bhlhb2				
bHLHe41	Bhlhb3	Bhlhb3	Bhlhb3				
bHLHe42	Ncoa11, Ncoa13, Ncoa12, Ncoa3	Ncoa1					
bHLHe43				CG13316a, CG13316b			
bHLHe44				CG1194			
bHLHe45							Erfp
bHLHe46					C17C31, C17C37		
bHLHe47					F31A32, F31A34		
bHLHe48							Bhlh58, T10024
bHLHe49				CG17100			
bHLHe50				CG8704			
bHLHe51				CG10446			
bHLHe52							Exp9
bHLHe53							Bhlh57
bHLHe54							Cdp

bHLHe55							Ptf-5
bHLHe56				CG7951			
bHLHe57				CG10798			
bHLHe58							Pif3-3
bHLHe59				CG1705			
bHLHe60							Bhlh56
bHLHe61							Erpr4
bHLHe62							Erpr3
bHLHe63				CG7664			
bHLHe64					Y7D3B7		
bHLHe65						Rtg3	
bHLHe66						Hms1	
bHLHe67							Put3
bHLHe68							Bhlh55, Ptf-4, Bhlh54
bHLHe69							Exp8
bHLHe70							Bhlh53, Bhlh52
bHLHe71							Bhlh51, Bhlh50
bHLHe72							Bhlh49, Bhlh48, Bhlh47
bHLHf1							PP-2, Ptf-8
bHLHf2							Bhlh86, Bhlh85
bHLHf3							Ptf-7
bHLHf4							Bhlh84, Bhlh83
bHLHf5							At,Bhlh82, Hyp3, Unk6, Ptf-6
bHLHf6							Bhlh81, Pbhlh2, Unk5, Spt
bHLHf7							Bhlh80, Hyp2, Hfr1, Pbhlh1
bHLHf8							Bhlh79, Bhlh78
bHLHf9							Bhlh77
bHLHf10							Bhlh76, Bhlh75, Bhlh73, Bhlh72, Bhlh74

Multiple bHLH in a single box/cell are similar and closely related genes.

Supplemental Figure S1 (color)



Supplemental Figure S1: Mouse bHLH super-tree for the 5 different clades and all 107 genes with the cellular expression of specific genes listed for Sertoli, Schwann, thymic and muscle cells. The expression is shown in the pie chart diagrams for each gene.