

Table S4
Transgenerational Female Amygdala Regulated Genes

Cytoskeleton-ECM

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Ncam1	144	92	0.64	BF409530	Neural cell adhesion molecule 1
Spock3_pre	357	236	0.66	BG668764	sparc/osteonectin, cwcv and kazal-like domains proteoglyc
<i>Eml2</i>	70	110	1.58	AF335571	<i>echinoderm microtubule associated protein like 2</i>
Fbln2	72	125	1.73	AA944398	fibulin 2
Kifap3_pre	80	52	0.65	BF418109	Kinesin-associated protein 3 (predicted)
Tpm3	278	108	0.39	NM_057208	tropomyosin 3, gamma
Pigl	79	51	0.64	D88364	phosphatidylinositol glycan, class L

Development

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Auts2_pre	139	60	0.43	AI070144	autism susceptibility candidate 2 (predicted)
Bai3_predic	81	52	0.64	BF401684	Brain-specific angiogenesis inhibitor 3 (predicted)
Crim1_prec	425	644	1.52	AI703807	cysteine-rich motor neuron 1 (predicted)
Dlgap1	91	23	0.25	BF413506	Discs, large (Drosophila) homolog-associated protein 1
Lrrc4	239	116	0.48	BE105879	leucine rich repeat containing 4 protein precursor
RGD15611i	207	128	0.62	BF397988	Similar to autism susceptibility candidate 2 (predicted)
<i>Sncg</i>	374	653	1.74	NM_031688	<i>synuclein, gamma</i>
Slit3	138	88	0.64	NM_031321	slit homolog 3 (Drosophila)

Epigenetics

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Cav2	126	57	0.45	BE349669	caveolin 2
<i>Chd2_pred.</i>	94	56	0.59	BF396633	<i>Chromodomain helicase DNA binding protein 2 (predicted)</i>
Hp1bp3	130	76	0.59	BF396757	Heterochromatin protein 1, binding protein 3
LOC68292i	97	147	1.52	BF557618	<i>similar to chromatin modifying protein 1B</i>

Golgi Apparatus

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
RGD15605	94	143	1.52	BI281965	<i>similar to Vps41 protein (predicted)</i>
Pgea1	59	92	1.55	BE117101	PKD2 interactor, golgi and endoplasmic reticulum associat

Growth Factors,Cyto- and Chemokines

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Cmkor1	176	99	0.56	NM_053352	chemokine orphan receptor 1
Dock9	98	59	0.60	BI286269	dedicator of cytokinesis 9
<i>Tgfb2</i>	263	150	0.57	BE117736	<i>Transforming growth factor, beta 2</i>
Negr1	169	77	0.45	AW533779	Neuronal growth regulator 1

Immune Response

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Aif1	103	155	1.51	NM_017196	allograft inflammatory factor 1

RT1-S3	83	41	0.49	AJ243974	RT1 class Ib, locus S3
Sart2_pred	102	63	0.62	BM386930	Squamous cell carcinoma antigen recognized by T cell
Xpa_predic	59	89	1.50	BF554085	xeroderma pigmentosum, complementation group A (predic
RT1-Ke4	196	122	0.62	BM389027	RT1 class I, locus Ke4
Stag1_prea	103	56	0.55	AI071210	Stromal antigen 1 (predicted)

Metabolism & Transport

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Adk	123	188	1.52	U90340	adenosine kinase
Aqp4	66	127	1.93	U14007	aquaporin 4
Arcn1	73	113	1.54	BF414061	archain 1
Ca3	29	297	10.14	AB030829	carbonic anhydrase 3
Chac1_pre	140	92	0.65	AI170665	ChaC, cation transport regulator-like 1 (E. coli) (predicted)
Cth	56	87	1.55	NM_017074	cystathionase (cystathionine gamma-lyase)
Kcnh1	98	37	0.38	BF394600	Potassium voltage-gated channel, subfamily H (eag-related)
LOC68480	112	59	0.52	BI273855	similar to Probable phospholipid-transporting ATPase ID (A
Pgm1	121	202	1.66	NM_017033	phosphoglucomutase 1
Pus7_predi	91	45	0.49	BM390168	Pseudouridylate synthase 7 homolog (S. cerevisiae) (predi
Scd2	289	471	1.63	BE107760	stearoyl-Coenzyme A desaturase 2

Proteolysis

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Lap3	164	103	0.63	AA945172	leucine aminopeptidase 3
RGD15638	269	163	0.60	AI180403	similar to cullin 4A (predicted)
Rnf6_pred	24	99	4.09	BI296352	ring finger protein (C3H2C3 type) 6 (predicted)
RGD15607	170	101	0.60	BF396481	Similar to ring finger protein 111 (predicted)
Usp47_pre	82	137	1.68	AI407830	ubiquitin specific protease 47 (predicted)

Receptors & Binding Proteins

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Abca1	76	174	2.30	AI502114	ATP-binding cassette, sub-family A (ABC1), member 1
Abca3	77	116	1.51	BF546340	ATP-binding cassette, sub-family A (ABC1), member 3
Gabbr1	86	56	0.65	BF410498	Gamma-aminobutyric acid (GABA) B receptor 1

Signaling

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
Akap5	215	102	0.48	NM_133515	A kinase (PRKA) anchor protein 5
Cnksr3	80	52	0.65	AW253242	Cnksr family member 3
Dusp8_pre	83	48	0.58	AW528387	dual specificity phosphatase 8 (predicted)
Farp1_pred	48	83	1.73	AI058490	FERM, RhoGEF (Arhgef) and pleckstrin domain protein 1 (
Git2	123	69	0.56	BF402645	G protein-coupled receptor kinase-interactor 2
Grik5	100	60	0.60	BF404569	Glutamate receptor, ionotropic, kainate 5
Herpud1	293	191	0.65	NM_053523	homocysteine-inducible, endoplasmic reticulum stress-indu
Itfg3	108	69	0.64	AA799854	integrin alpha FG-GAP repeat containing 3
Itgb8_predi	193	114	0.59	BG668993	Integrin beta 8 (predicted)
Itgb8_predi	362	204	0.56	AI502837	Integrin beta 8 (predicted)
LOC68444	144	265	1.84	BE106252	similar to Peptidyl-prolyl cis-trans isomerase NIMA-interact
Nek1_predi	126	76	0.61	AI406369	NIMA (never in mitosis gene a)-related expressed kinase 1
Ntrk2	122	74	0.61	BF386266	Neurotrophic tyrosine kinase, receptor, type 2

<i>Plekhb2_pr</i>	41	88	2.13	AW254369	<i>pleckstrin homology domain containing, family B (evectins)</i>
<i>Ppp2r1b</i>	58	106	1.84	AI411788	protein phosphatase 2 (formerly 2A), regulatory subunit A (
<i>Ppp3ca</i>	282	146	0.52	AI145507	Protein phosphatase 3, catalytic subunit, alpha isoform
<i>Ppp3ca</i>	69	112	1.63	BF388224	<i>Protein phosphatase 3, catalytic subunit, alpha isoform</i>
<i>Ppp6c</i>	102	158	1.56	NM_133589	protein phosphatase 6, catalytic subunit
<i>Prkce</i>	101	45	0.45	BI301465	<i>Protein kinase C, epsilon</i>
<i>Prkwnk1</i>	138	74	0.54	AI714037	Protein kinase, lysine deficient 1
<i>Ptprij</i>	376	182	0.48	NM_017269	<i>protein tyrosine phosphatase, receptor type, J</i>
<i>Ralgds</i>	181	119	0.66	NM_019250	ral guanine nucleotide dissociation stimulator
RGD13072	85	44	0.52	BF391396	Similar to protein kinase, lysine deficient 1; kinase deficient
RGD15616	110	49	0.44	AW534457	Similar to nemo like kinase (predicted)
<i>RICS_pred.</i>	758	489	0.65	BE097238	<i>RhoGAP involved in beta-catenin-N-cadherin and NMDA re</i>

Transcription

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio	Genbank	Gene Title_Affymetrix
<i>Baz1b</i>	111	63	0.57	BF395914	Bromodomain adjacent to zinc finger domain protein 1B
<i>Bcl11b_pre</i>	513	227	0.44	BM390227	B-cell leukemia/lymphoma 11B (predicted)
<i>Foxo1a</i>	128	85	0.66	BF406350	Forkhead box O1A
<i>Klf5</i>	63	104	1.66	NM_053394	Kruppel-like factor 5
LOC500430	56	90	1.61	BF391635	similar to ankyrin repeat domain 6
LOC690667	91	60	0.67	BF398283	Similar to zinc finger protein 40
<i>Mll</i>	518	307	0.59	BE114473	myeloid/lymphoid or mixed-lineage leukemia
<i>Mllt10</i>	82	50	0.60	BF396749	myeloid/lymphoid or mixed-lineage leukemia (trithorax hom
<i>NIPBL</i>	104	61	0.59	AA963592	Nipped-B homolog (Drosophila)
<i>RGD15631</i>	1396	2493	1.79	BE104219	<i>similar to MADS box transcription enhancer factor 2, polyp</i>
<i>Wiz_predicti</i>	131	70	0.53	H31790	widely-interspaced zinc finger motifs (predicted)
<i>Crebl2</i>	93	233	2.51	BE102391	<i>cAMP responsive element binding protein-like 2</i>

Translation & Protein Modification

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio	Genbank	Gene Title_Affymetrix
<i>Arf4l_predic</i>	78	28	0.36	AI030650	ADP-ribosylation factor 4-like (predicted)
<i>Brunol4_pr</i>	195	117	0.60	AW524497	<i>Bruno-like 4, RNA binding protein (Drosophila) (predicted)</i>
<i>Eif3s6ip</i>	89	146	1.64	BF420467	eukaryotic translation initiation factor 3, subunit 6 interactin

Miscellaneous & Unknown

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio	Genbank	Gene Title_Affymetrix
<i>Gramd1b_p</i>	117	78	0.67	AI175700	GRAM domain containing 1B (predicted)
<i>Lce1f_pred</i>	176	98	0.56	BI281143	late cornified envelope 1F (predicted) /// RGD1561089 (pre
LOC313672	78	47	0.60	BF415778	Similar to CG11206-PA
LOC683334	78	49	0.63	AI058900	hypothetical protein LOC683334 /// hypothetical protein LO
LOC690777	42	101	2.39	BF404935	Similar to RUN and FYVE domain-containing 2
<i>Qser1_prec</i>	135	87	0.64	AA800519	Glutamine and serine rich 1 (predicted)
RGD13061	78	46	0.59	AI071962	similar to predicted CDS, putative protein of bilateral origin
RGD13065	140	91	0.65	AI577870	similar to Protein C22orf5
<i>RGD13079</i>	148	88	0.60	AI146080	<i>similar to hypothetical protein FLJ14681 (predicted)</i>
RGD13087	89	51	0.58	BE107410	similar to KIAA0892 protein (predicted)
RGD15596	195	383	1.96	BE101933	Similar to hypothetical protein FLJ25477 isoform 2 (pre
RGD15619	489	238	0.49	AA848540	Similar to IQ motif and WD repeats 1 (predicted)
<i>RGD15624</i>	112	174	1.56	BG665671	<i>similar to WAC (predicted)</i>
RGD15644	220	370	1.68	AW915035	RGD1564450 (predicted)

Serinc3	83	50	0.60	BE120228	Serine incorporator 3
---	80	47	0.59	BE108371	Transcribed locus, weakly similar to XP_341406.2 similar 1
---	153	90	0.59	BF544149	Transcribed locus, strongly similar to XP_001058170.1 hy
---	104	66	0.64	BF408769	Transcribed locus, strongly similar to XP_347025.2 hypoth
---	396	257	0.65	AI029275	Transcribed locus, weakly similar to XP_001054001.1 sim

EST's

Sample	F3-Cont	F3-Vinc	Vin/Con	Genbank	Gene Title_Affymetrix
Gene Symt	Raw	Raw	Ratio		
<i>RGD15609</i>	6	178	27.85	AA799328	similar to expressed sequence AW413625 (predicted)
<i>RGD13118</i>	78	119	1.53	BI284801	similar to RIKEN cDNA 1110021N07
<i>RGD13053</i>	77	50	0.65	BF401603	similar to RIKEN cDNA 492151116
<i>RGD13057</i>	511	318	0.62	AI179665	Similar to RIKEN cDNA 5033406L14
<i>RGD13060</i>	83	36	0.43	AW916721	similar to RIKEN cDNA A630054L15; hypothetical protein M
<i>RGD13109</i>	103	55	0.54	BE116091	similar to RIKEN cDNA E130308A19 (predicted)
---	207	130	0.63	BE103273	Transcribed locus
---	89	152	1.70	BF406304	Transcribed locus
---	232	139	0.60	BE121006	Transcribed locus
---	141	47	0.33	BF403875	Transcribed locus
---	137	85	0.62	BI278779	Transcribed locus
---	172	86	0.50	AI102821	Transcribed locus
---	160	84	0.52	AI070489	Transcribed locus
---	154	351	2.27	AI103530	Transcribed locus
---	231	139	0.60	BI278952	Transcribed locus
---	109	299	2.76	AA944136	Transcribed locus
---	63	106	1.70	BE110067	Transcribed locus
---	76	137	1.79	AA899937	Transcribed locus
---	84	50	0.59	BF396725	Transcribed locus
---	120	200	1.66	BF545930	Transcribed locus
---	65	106	1.63	BE120930	Transcribed locus
---	88	47	0.54	BG672252	Transcribed locus
---	109	71	0.65	BI286900	Transcribed locus
---	402	645	1.60	AI575082	Transcribed locus
---	104	36	0.35	BE097725	Transcribed locus
---	137	82	0.60	BF402566	Transcribed locus
---	180	101	0.56	BF399309	Transcribed locus
---	82	52	0.64	BF391128	Transcribed locus
---	200	101	0.50	AA996491	Transcribed locus
---	78	43	0.55	BF547003	Transcribed locus
---	243	150	0.62	AA926109	Transcribed locus
---	120	78	0.66	AA859319	Transcribed locus
---	115	70	0.60	AW528823	Transcribed locus
---	212	122	0.58	AI145015	Transcribed locus
---	120	72	0.60	AI137306	Transcribed locus
---	361	211	0.58	BE107458	Transcribed locus
---	80	42	0.52	BF418643	Transcribed locus
---	91	59	0.65	BF409564	Transcribed locus
---	112	66	0.59	BF394244	Transcribed locus
---	113	75	0.67	AI101372	Transcribed locus
---	133	201	1.52	AA944179	Transcribed locus
---	122	80	0.65	AW535602	---
---	76	44	0.57	AA800192	---
---	117	53	0.46	FX_ratb1/X12!	---

---	80	46	0.57	AA875617	---
---	137	79	0.57	AI577496	---
---	765	400	0.52	NM_053584	---
---	100	152	1.52	AI764288	---
---	153	97	0.63	AI236099	---
---	350	233	0.66	BF388125	---
---	107	47	0.44	H31323	---
---	77	29	0.38	BF405788	---
---	203	341	1.68	BG671050	---
---	90	51	0.57	BF564798	---
---	78	41	0.53	AW919386	---
---	38	78	2.06	<i>BI288579</i>	---
---	231	153	0.66	BG380566	---
---	154	96	0.62	BF399576	---
---	301	169	0.56	AI176695	---
---	394	246	0.63	AI059929	---
---	3571	2335	0.65	AI008646	---
---	<i>174</i>	<i>100</i>	0.57	<i>BF410240</i>	---
---	82	39	0.48	AI013683	---

**Note - The bolded genes are similar between male and female gene sets.
The italic genes are similar within the same sex between amygdala and hippocampus.**