

Table S7. Selected functional subcategories that are significantly (Fisher's Exact Test $P < 0.05$) enriched with human homologs of zebrafish genes deregulated in all BPA treatment groups (500 $\mu\text{g/L}$, 1500 $\mu\text{g/L}$ and 4500 $\mu\text{g/L}$). The data was generated using Ingenuity Pathway Analysis™ software and only subcategories enriched with known endocrine-regulated homologs are listed. Functional annotation are referenced below the table.

Functional Subcategories	Functional Annotation (reference)	Molecules (human homologs)
Cell Morphology	remodeling of dendrites (Ramos et al. 2007)	SP4
	branching of fibroblast cell lines (Kato et al. 2002)	RND3
	morphology of neuromuscular junctions (O' leary et al. 2007)	GABPA
	permeability of mitochondrial membrane (Unoki and Nakamura, 2003)	EGR2
	size of B lymphocytes (Pappu et al. 1999)	BLNK
Cell-To-Cell Signaling and Interaction	neurotransmission of neuromuscular junctions (O' leary et al. 2007)	GABPA
	dynamics of focal adhesions (Klein et al. 2008)	RND3
Cellular Assembly and Organization	remodeling of dendrites, quantity of dendrites (Ramos et al. 2007)	SP4
	permeability of mitochondrial membrane (Unoki and Nakamura, 2003)	EGR2
Cellular Development	development of trigeminal motor neurons; differentiation of Schwann cells; myelination of neurons (Schneider-Maunoury et al. 1997; Herdegen and Leah, 1998; Le et al. 2005)	EGR2
	growth of gonadal cell lines (Unoki and Nakamura, 2001)	EGR2
	development of mononuclear leukocytes (Minegishi et al. 1999; Lefebvre et al. 2005)	BLNK, EGR2
	development of thymocytes (Lefebvre et al. 2005)	EGR2
	differentiation of B lymphocytes (Flemming et al. 2003)	BLNK
Gene Expression	activation of gene (Sawada et al. 1999; Herdegen and Leah, 1998; Torrungruang et al. 2002)	EGR2, GABPA, ZNF384
	expression of endoplasmic reticulum stress element (Abdelrahim et al. 2005)	SP4
Cell Death	survival of trophoblast cells (Chen et al. 2006)	NDRG1
	apoptosis (Boswell et al. 2007; Jacobs et al. 2007; Stein et al. 2004; Tan et al. 2001; Zorick et al. 1999)	BLNK, EGR2, GABPA, NDRG1, RND3,
Cellular Growth and Proliferation	growth of colorectal cancer cell lines; growth of gonadal and endometrial cell lines (Unoki and Nakamura, 2001)	EGR2
	proliferation of Schwann cells (Zorick et al. 1999)	EGR2

	proliferation of pre-B lymphocytes (Flemming et al. 2003)	BLNK
	colony formation of prostate cancer cell lines (Bandyopadhyay et al. 2003)	NDRG1
	proliferation of glioma cells (Wu et al. 2008)	LRRC4
Tissue Morphology	fusion of cranial nerve ganglion (Herdegen and Leah, 1998)	EGR2
	degeneration of sciatic nerve (Okuda et al. 2004)	NDRG1
	quantity of B-1a lymphocytes (Pappu et al. 1999)	BLNK
	quantity of Purkinje cells (Nguyễn-Trần et al. 2000)	SP4
Cellular Movement	mingling of cells (Voiculescu et al. 2001)	EGR2
	guidance of motor axons (Helmbacher et al. 1998)	EGR2
Lipid Metabolism	metabolism of fatty acid (Fomitcheva et al. 1998; Matsubara et al. 1990)	HSD17B8, ACADM
Molecular Transport	nuclear export of molecule (Nakamoto et al. 2000)	ZNF384
	transport of phosphoric acid (Field et al. 1999)	SLC34A2
Embryonic Development	development of rhombomere 3, 5 and 6 (Schneider-Maunoury et al. 1997)	EGR2
	differentiation and survival of trophoblast cells (Chen et al. 2006)	NDRG1
Nervous System Development and Function	development of trigeminal motor neurons; myelination of neurons; fusion of cranial nerve ganglion; neurological process of peripheral nerve; proliferation and differentiation of Schwann cells (Schneider-Maunoury et al. 1997; Herdegen and Leah, 1998; Zorick et al. 1999; Le et al. 2005)	EGR2
	guidance of motor axons (Helmbacher et al. 1998; Zhang et al. 2005)	EGR2, LRRC4
	morphology and neurotransmission of neuromuscular junctions (O'leary et al. 2007)	GABPA
	remodeling of dendrites; quantity of dendrites; quantity of Purkinje cells (Ramos et al. 2007)	SP4
Reproductive System Development and Function	polyploidy of mammary cells (Kim et al. 2004)	NDRG1
	growth of gonadal cell lines (Unoki and Nakamura, 2001)	EGR2
	gonad development (Aziz et al. 2001)	HSD17B8
	spermatogenesis (Nakamoto et al. 2004)	ZNF384 homolog
Endocrine System Development and Function	metabolism of androgen and estrogen (Fomitcheva et al. 1998)	HSD17B8

Skeletal and Muscular System Development and Function	morphology and neurotransmission of neuromuscular junctions (O' leary et al. 2007)	GABPA
	suppressed the formation of mineralized nodules in osteoblastic cell (Shen et al. 2002)	ZNF384
Tissue Development	development of motor nucleus of trigeminal nerve; development of rhombomere 3, 5, and 6; myelination of peripheral nerve (Schneider-Maunoury et al. 1997; Herdegen and Leah, 1998)	EGR2
	differentiation of trophoblast (Chen et al. 2006)	NDRG1
Hematological System Development and Function	development of mononuclear leukocytes (Minegishi et al. 1999; Lefebvre et al. 2005)	BLNK, EGR2
	proliferation and differentiation of pre-B lymphocytes; quantity of B-1a lymphocytes; size of B lymphocytes (Flemming et al. 2003; Pappu et al. 1999)	BLNK
	arrest in development of thymocytes (Lefebvre et al. 2005)	EGR2
Immune and Lymphatic System Development and Function	development of lymphocytes (Minegishi et al. 1999; Lefebvre et al. 2005)	BLNK, EGR2
	proliferation and differentiation of pre-B lymphocytes; quantity of B-1a lymphocytes; size of B lymphocytes (Flemming et al. 2003; Pappu et al. 1999)	BLNK
	arrest in development of thymocytes (Lefebvre et al. 2005)	EGR2
Cancer	developmental process of colorectal cancer cell lines (Guan et al. 2000; Unoki and Nakamura, 2001)	EGR2, NDRG1
	neoplasia and metastasis of liver; polyploidy of bladder cell lines; differentiation and polyploidy of colorectal cancer cell lines; colony formation of prostate cancer cell lines (Bandyopadhyay et al. 2003; Guan et al. 2000; Kim et al. 2004)	NDRG1
	growth of endometrial and colorectal cancer cell lines (Unoki and Nakamura, 2001)	EGR2
	B-cell leukemia of mice (Hayashi et al. 2003)	BLNK
	suppress tumorigenesis and invasion of glioma cells (Wu et al. 2008)	LRRC4
Neurological Disease	apoptosis of Schwann cells; misrouting of axons; congenital hypomyelination; Dejerine-Sottas disease; Charcot-Marie-Tooth disease; polyneuropathy (Herdegen and Leah, 1998; Szigeti et al. 2008; Zorick et al. 1999)	EGR2
	neurological disorder of sciatic nerve (degeneration and demyelination of sciatic nerve) (Okuda et al. 2004)	NDRG1
	Alzheimer disease (Boutillier et al. 2007)	SP4

	suppress tumorigenesis, proliferation and invasion of glioma cells; hypermethylated in brain tumors (Wu et al. 2008)	LRRC4
Genetic Disorder	congenital hypomyelination; Dejerine-Sottas disease; Charcot-Marie-Tooth disease (Szigeti et al. 2008)	EGR2
Hematological Disease	pre-B cell leukemia of mice (Hayashi et al. 2003)	BLNK
Gastrointestinal Disease	developmental process of colorectal cancer cell lines (Guan et al. 2000; Unoki and Nakamura, 2001)	EGR2, NDRG1
	growth of colorectal cancer cell lines (Unoki and Nakamura, 2001)	EGR2
	neoplasia and metastasis of liver; differentiation and polyploidy of colorectal cancer cell lines (Guan et al. 2000; Kim et al. 2004)	NDRG1
Cardiovascular Disease	sinus bradycardia and ventricular tachycardia of mice (Nguyễn-Trần et al. 2000)	SP4
Connective Tissue Disorders	connective tissue disorder (Corut et al. 2006; Jang et al. 2006; Sela et al. 2008)	BLNK, EGR2, SLC34A2
Reproductive System Disease	colony formation of prostate cancer cell lines; polyploidy of mammary cells (Bandyopadhyay et al. 2003; Kim et al. 2004)	NDRG1

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