

APPENDIX C

This appendix contains information on the derivation of the assay subset.

Table #1: Complete list of 283 assays used to profile the food dyes.

Table #2: Expanded details on the neurorelevant 182 assays (criteria outlined in the Methods)

Table #3: All assays tested across nine organophosphate pesticides (960)

Table #4: Filtered list of Table #3 - assays active for at least three pesticides (63)

Table #5: Assays under subsets of 1) oxidative stress and 2) Inflammation from Iyer et al., 2019

Table #6: Cell viability assays (88)

Table #1: List of 283 assays used to screen the food dyes. A: Neuro-relevant assay from ATG, NVS, Tox21. B: Active assay for DNT pesticide models. C: Assay related to oxidative stress or inflammation

ASSAY	RATIONALE	FD&C Blue No. 1	FD&C Blue No. 2	FD&C Green No. 3	FD&C Red No. 3	FD&C Red No. 4	FD&C Yellow No. 5	FD&C Yellow No. 6
NVS GPCR rAdra2 NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rAdrb NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rCRF	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rGABBR	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rGalanin	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rGHB	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rH3	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rmAdra2B	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR mmMGluR1	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR mmMGluR5	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR RNK1	A	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested
NVS GPCR rNK3	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR RNTS	A	not tested	not tested	not tested	not tested	tested, active result	not tested	tested, active result
NVS GPCR rOplate NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rOplate NonSelectiveNa	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR rSST	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS GPCR RTRH	A	not tested	tested, but inactive	tested, but inactive	tested, but inactive	not tested	not tested	not tested
NVS GPCR rVIP NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS IC RCABT2CHL	A	not tested	not tested	not tested	not tested	tested, but inactive	tested, active result	not tested
NVS IC RCACHN	A	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS IC rCaDHPPrCh L	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS IC rKAR	A	not tested	not tested	not tested	not tested	tested, but inactive	not tested	tested, but inactive
NVS IC rKATPCh	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS IC rKCaCh	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS IC RNACH SITE2	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC bGABAR Agonist	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC bGABARa1	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC bGABARa5	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC H5HT3	A	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested
NVS LGIC HNNR NBUNGSENS	A	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested
NVS LGIC rAMPA	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC rGABAR NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC RGABARA6	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC rGluNMDA Agonist	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC rGluNMDA MK801 Agonist	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC rGlyRStySens	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS LGIC rNNR BungSens	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS MP HPBR	B	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS MP RPBR	B	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS NR cAR	A	tested, active result	tested, active result	tested, active result	tested, active result	not tested	not tested	not tested
NVS NR hAR	A	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested
NVS NR hGR	A, B	tested, active result	not tested	tested, active result	tested, active result	tested, active result	not tested	not tested
NVS NR HTRA ANTAGONIST	A	not tested	not tested	tested, active result	not tested	not tested	tested, but inactive	not tested
NVS NR rAR	A	tested, active result	not tested	tested, active result	not tested	tested, but inactive	not tested	not tested
NVS NR rMR	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS OR gSIGMA NonSelective	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR qDAT	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR hAdoT	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR hDAT	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR HNET	A	not tested	not tested	not tested	tested, active result	tested, but inactive	not tested	not tested
NVS TR HSERT	A	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS TR rAdoT	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR rNET	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS TR RVMAT2	A	not tested	not tested	not tested	not tested	not tested	not tested	not tested
OT FXR FXRSRC1 0480	B	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
OT FXR FXRSRC1 1440	B	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 AHR LUC AGONIST	A, B	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 AR BLA AGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 AR LUC MDAKB2 AGONIST	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 AR_LUC_MDAKB2_AGONIST_COU NTERSCREEN	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 AR_LUC_MDAKB2_ANTAGONIST_ SPECIFICITY	A	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive
TOX21 ARE BLA AGONIST RATIO	A, B	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result
TOX21 DT40	B	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 DT40 100	B	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 DT40 657	B	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 ERA BLA AGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERA BLA ANTAGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERA LUC BG1 AGONIST	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERA_LUC_BG1_AGONIST_COUNT ERSCREEN	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERA LUC BG1 ANTAGONIST	A	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 ERA_LUC_BG1_ANTAGONIST_SP ECIFICITY	A	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 ERB BLA AGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERB BLA ANTAGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERR AGONIST	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 ERR ANTAGONIST	A	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21_ESRE_BLA_RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 GR BLA Agonist ratio	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 GR BLA Antagonist ratio	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 PGC ERR AGONIST	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 PGC ERR ANTAGONIST	A	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, active result
TOX21 TR LUC GH3 AGONIST	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 TR LUC GH3 ANTAGONIST	A	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 TSHR AGONIST RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOX21 TSHR ANTAGONIST RATIO	A	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive
TOX21 TSHR WT RATIO	A	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOTAL NUMBER OF TESTED ASSAYS		134	62	66	141	159	146	147
TOTAL NUMBER OF ACTIVE ASSAYS		19	8	21	62	27	11	16
PERCENT ACTIVE		14%	13%	32%	44%	17%	8%	11%

Table #2: Potential neuro-relevant assays from platforms Attagene (ATG), Novascreen (NVS), and Tox21.

AssayComponentEndpointName	Organism	Tissue	CellFreeComponentSource	IntendedTargetFamily	IntendedTargetFamilySub	GeneName	GeneSymbol	ToxPI Slice*
NVS_ENZ_hAChE	human	not applicable	not applicable	esterase	acetylcholinesterase	acetylcholinesterase (Yt blood group)	ACHE	ENZ
NVS_ENZ_hAChE_Activator	human	not applicable	not applicable	esterase	acetylcholinesterase	acetylcholinesterase (Yt blood group)	ACHE	ENZ
NVS_ENZ_rabi2C	rabbit	brain	not applicable	oxidoreductase	imidazole receptor	creatine kinase, brain	CKB	ENZ
NVS_ENZ_rabi2C_Activator	rabbit	brain	Rabbit brain membranes	oxidoreductase	imidazole receptor	creatine kinase, brain	CKB	ENZ
NVS_ENZ_rACFSKBinding	rat	brain	Rat forebrain membranes	lyase	adenyllyl cyclase	adenylate cyclase 5	Adcy5	ENZ
NVS_ENZ_rACFSKBinding_Activator	rat	brain	Rat forebrain membranes	lyase	adenyllyl cyclase	adenylate cyclase 5	Adcy5	ENZ
NVS_ENZ_rAChE	rat	brain	Rat brain membranes	esterase	acetylcholinesterase	acetylcholinesterase	Ache	ENZ
NVS_ENZ_rAChE_Activator	rat	brain	Rat brain membranes	esterase	acetylcholinesterase	acetylcholinesterase	Ache	ENZ
NVS_ENZ_rCNOS	rat	brain	Rat brain membranes	oxidoreductase	nitric oxide synthase	nitric oxide synthase 1, neuronal	Nos1	ENZ
NVS_ENZ_rCNOS_Activator	rat	brain	Rat brain membranes	oxidoreductase	nitric oxide synthase	nitric oxide synthase 1, neuronal	Nos1	ENZ
NVS_ENZ_rCOMT	rat	brain	Rat dorsal striatum	methyltransferase	o-methyltransferase	catechol-O-methyltransferase	Comt	ENZ
NVS_ENZ_rCOMT_Activator	rat	brain	Rat dorsal striatum	methyltransferase	o-methyltransferase	catechol-O-methyltransferase	Comt	ENZ
NVS_ENZ_rMAOAC	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase A	Maoa	ENZ
NVS_ENZ_rMAOAC_Activator	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase A	Maoa	ENZ
NVS_ENZ_rMAOBC	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase B	Maoab	ENZ
NVS_ENZ_rMAOBC_Activator	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase B	Maoab	ENZ
NVS_ENZ_rMAOBP	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase B	Maoab	ENZ
NVS_ENZ_rMAOBP_Activator	rat	brain	Rat brain	oxidoreductase	monoamine oxidase	monoamine oxidase B	Maoab	ENZ
NVS_GPCR_bAdor_NonSelective	bovine	brain	Bovine striatal membranes	gpcr	rhodopsin-like receptor	adenosine A1 receptor	ADORA1	GPCR
NVS_GPCR_bAT2	bovine	brain	Bovine cerebellar membranes	gpcr	rhodopsin-like receptor	angiotensin II receptor, type 2	AGTR2	GPCR
NVS_GPCR_bDR_NonSelective	bovine	brain	Bovine striatal membranes	gpcr	rhodopsin-like receptor	dopamine receptor D1	DRD1	GPCR
NVS_GPCR_bh1	bovine	brain	Bovine cerebellar membranes	gpcr	rhodopsin-like receptor	histamine receptor H1	HRH1	GPCR
NVS_GPCR_bNPY_NonSelective	bovine	brain	Bovine hippocampal membranes	gpcr	rhodopsin-like receptor	neuropeptide Y	NPY	GPCR
NVS_GPCR_g5HT4	guinea pig	brain	Guinea pig striatal membranes	gpcr	rhodopsin-like receptor	5 hydroxytryptamine (serotonin) receptor 4	Htr4	GPCR
NVS_GPCR_gANPA	guinea pig	brain	Guinea pig cerebellar membranes	lyase	guanylyl cyclase	natriuretic peptide A	Nppa	GPCR
NVS_GPCR_gH2	guinea pig	brain	Guinea pig striatal membranes	gpcr	rhodopsin-like receptor	histamine receptor H2	Hrh2	GPCR
NVS_GPCR_gOpiateK	guinea pig	brain	Guinea pig cerebellar membranes	gpcr	rhodopsin-like receptor	opioid receptor, kappa 1	Oprk1	GPCR
NVS_GPCR_h5HT2A	human	brain	Human cortex	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 2A, G protein-coupled	HTR2A	GPCR
NVS_GPCR_h5HT5A	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 5A, G protein-coupled	HTR5A	GPCR
NVS_GPCR_h5HT6	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 6, G protein-coupled	HTR6	GPCR
NVS_GPCR_h5HT7	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 7, adenylyl cyclase-coupled	HTR7	GPCR
NVS_GPCR_hAdoRA1	human	brain	Human cortical membranes	gpcr	rhodopsin-like receptor	adenosine A1 receptor	ADORA1	GPCR
NVS_GPCR_hAdoRA2a	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	adenosine A2a receptor	ADORA2A	GPCR
NVS_GPCR_HADRA2A	human	not applicable	HT29	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2A	ADRA2A	GPCR
NVS_GPCR_HADRA2C	human	not applicable	HT29	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2C	ADRA2C	GPCR
NVS_GPCR_hAT1	human	brain	KAN-TS	gpcr	rhodopsin-like receptor	angiotensin II receptor, type 1	AGTR1	GPCR
NVS_GPCR_hDRD1	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	dopamine receptor D1	DRD1	GPCR
NVS_GPCR_hDRD2s	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	dopamine receptor D2	DRD2	GPCR
NVS_GPCR_hDRD4.4	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	dopamine receptor D4	DRD4	GPCR
NVS_GPCR_HM1	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 1	CHRM1	GPCR
NVS_GPCR_HM2	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 2	CHRM2	GPCR
NVS_GPCR_HM3	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 3	CHRM3	GPCR
NVS_GPCR_HM4	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 4	CHRM4	GPCR
NVS_GPCR_HM5	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 5	CHRM5	GPCR
NVS_GPCR_hNK2	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	tachykinin receptor 2	TACR2	GPCR
NVS_GPCR_HOPIATE_D1	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	opioid receptor, delta 1	OPRD1	GPCR
NVS_GPCR_HOPIATE_MU	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	opioid receptor, mu	Oprm	GPCR
NVS_GPCR_mCKKBCentral	mouse	brain	Mouse forebrain membranes	gpcr	rhodopsin-like receptor	cholecystokinin B receptor	Cckbr	GPCR
NVS_GPCR_hORL1	human	not applicable	HEK293	gpcr	rhodopsin-like receptor	opiate-receptor like 1	ORL1	GPCR
NVS_GPCR_p5HT2C	pig	brain	Pig choroid plexus membranes	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 2C, G protein-coupled	HTR2C	GPCR
NVS_GPCR_r5HT_NonSelective	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 1A, G protein-coupled	Htr1a	GPCR
NVS_GPCR_r5HT1_NonSelective	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 1A, G protein-coupled	Htr1a	GPCR
NVS_GPCR_rAdra1_NonSelective	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	adrenoceptor alpha 1A	Adra1a	GPCR
NVS_GPCR_rAdra1A	rat	brain	Rat cortical membranes (pretreated with chloroethyl clonidine-CEC)	gpcr	rhodopsin-like receptor	adrenoceptor alpha 1A	Adra1b	GPCR
NVS_GPCR_RADRA1B	rat	liver	Rat liver membranes	gpcr	rhodopsin-like receptor	adrenoceptor alpha 1B	Adra1a	GPCR
NVS_GPCR_rAdra2_NonSelective	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2A	Adra2a	GPCR
NVS_GPCR_rAdrb_NonSelective	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	adrenoceptor beta 1	Adrb1	GPCR
NVS_GPCR_rCRF	rat	brain	Rat cortical membranes	gpcr	secretin receptor	corticotropin releasing hormone receptor 1	Chr1	GPCR
NVS_GPCR_rGABBR	rat	brain	Rat cortical membranes	gpcr	metabotropic glutamate receptor	gamma-aminobutyric acid (GABA) B receptor 1	Gabbr1	GPCR
NVS_GPCR_rGalanin	rat	brain	Rat brain membranes	gpcr	rhodopsin-like receptor	galanin receptor 1	Galm1	GPCR
NVS_GPCR_rGHB	rat	brain	Rat forebrain	gpcr	metabotropic glutamate receptor	tetraspanin 17	Tspan17	GPCR
NVS_GPCR_rH3	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	histamine receptor H3	Hrh3	GPCR
NVS_GPCR_rmAdra2B	rat	brain	neurogloma/blastoma hybrid cells	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2B	Adra2b	GPCR
NVS_GPCR_rmMgluR1	rat	brain	Rat cerebellum	gpcr	metabotropic glutamate receptor	glutamate receptor, metabotropic 1	Grm1	GPCR
NVS_GPCR_rmMgluR5	rat	brain	Rat whole brain	gpcr	metabotropic glutamate receptor	glutamate receptor, metabotropic 5	Grm5	GPCR
NVS_GPCR_RNK1	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	tachykinin receptor 1	Tacr1	GPCR
NVS_GPCR_rNK3	rat	brain	Rat cortical membranes	gpcr	rhodopsin-like receptor	tachykinin receptor 3	Tacr3	GPCR
NVS_GPCR_rNTS	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	neurotensin receptor 1	Ntsr1	GPCR
NVS_GPCR_rOpiate_NonSelective	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	opioid receptor, mu 1	Oprm1	GPCR
NVS_GPCR_rOpiate_NonSelectiveNa	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	opioid receptor, mu 1	Oprm1	GPCR
NVS_GPCR_rSST	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	somatostatin receptor 1	Sstr1	GPCR
NVS_GPCR_rTRH	rat	brain	Rat forebrain membranes	gpcr	rhodopsin-like receptor	thyrotropin releasing hormone receptor	Trhr	GPCR
NVS_GPCR_rVIP_NonSelective	rat	brain	Rat forebrain membranes	gpcr	secretin receptor	vasoactive intestinal peptide receptor 1	Vipr1	GPCR
NVS_IC_rCaBTZCHL	rat	brain	Rat cortical membranes	ion channel	calcium channel	calcium channel, voltage-dependent, P/Q type, alpha 1A subunit	Cacla1a	IC
NVS_IC_rCaChN	rat	brain	Rat cortical membranes	ion channel	calcium channel	calcium channel, voltage-dependent, N type, alpha 1B subunit	Cacla1b	IC
NVS_IC_rCaDHPCh_L	rat	brain	Rat cortical membranes	ion channel	calcium channel	calcium channel, voltage-dependent, P/Q type, alpha 1A subunit	Cacla1a	IC
NVS_IC_rKAR	rat	brain	Rat forebrain membranes	ion channel	ligand-gated ion channel	glutamate receptor, ionotropic, kainate 1	Grik1	IC
NVS_IC_rKATPCh	rat	brain	Rat cortical membranes	ion channel	potassium channel	potassium inwardly-rectifying channel, subfamily J, member 1	Kcnj1	IC

*ToxPI categorization was only done on assays in the NVS platform due to manageability and grouping.

Table #2: Potential neuro-relevant assays from platforms Attagene (ATG), Novascreen (NVS), and Tox21.

AssayComponentEndpointName	Organism	Tissue	CellFreeComponentSource	IntendedTargetFamily	IntendedTargetFamilySub	GeneName	GeneSymbol	ToxPi Slice*
NVS_IC_rKCaCh	rat	brain	Rat forebrain membranes	ion channel	potassium channel	potassium intermediate/small conductance calcium-activated channel, subfamily N, member 1	Kcnn1	IC
NVS_IC_rNaCh_site2	rat	brain	Rat forebrain membranes	ion channel	sodium channel	sodium channel, voltage-gated, type I, alpha subunit	Scn1a	IC
NVS_LGIC_bGABAR_Agonist	bovine	brain	Bovine cerebellar membranes	ion channel	ligand-gated ion channel	gamma-aminobutyric acid (GABA) A receptor, alpha 1	GABRA1	LGIC
NVS_LGIC_bGABARa1	bovine	brain	Bovine cortical membranes	ion channel	ligand-gated ion channel	gamma-aminobutyric acid (GABA) A receptor, alpha 1	GABRA1	LGIC
NVS_LGIC_bGABARa5	bovine	brain	Bovine hippocampal membranes	ion channel	ligand-gated ion channel	gamma-aminobutyric acid (GABA) A receptor, alpha 5	GABRA5	LGIC
NVS_LGIC_h5HT3	human	not applicable	HEK293	ion channel	ligand-gated ion channel	5-hydroxytryptamine (serotonin) receptor 3A, ionotropic	HTR3A	LGIC
NVS_LGIC_hNNR_NBungSens	human	brain	Human neuroblastoma membrane cells	ion channel	ligand-gated ion channel	cholinergic receptor, nicotinic, alpha 2 (neuronal)	CHRNA2	LGIC
NVS_LGIC_rAMPA	rat	brain	Rat forebrain membranes	ion channel	ligand-gated ion channel	glutamate receptor, ionotropic, AMPA 1	Gria1	LGIC
NVS_LGIC_rGABAR_NonSelective	rat	brain	Rat whole brain	ion channel	ligand-gated ion channel	gamma-aminobutyric acid (GABA) A receptor, alpha 1	Gabra1	LGIC
NVS_LGIC_rGABARa6	rat	brain	Rat cerebellar membranes	ion channel	ligand-gated ion channel	gamma-aminobutyric acid (GABA) A receptor, alpha 6	Gabra6	LGIC
NVS_LGIC_rGluNMDA_Agonist	rat	brain	Rat forebrain membranes	ion channel	ligand-gated ion channel	glutamate receptor, ionotropic, N-methyl D-aspartate 1	Grin1	LGIC
NVS_LGIC_rGluNMDA_MK801_Agonist	rat	brain	Rat forebrain membranes	ion channel	ligand-gated ion channel	glutamate receptor, ionotropic, N-methyl D-aspartate 1	Grin1	LGIC
NVS_LGIC_rGlyRStrySens	rat	brain	Rat spinal cord membranes	ion channel	ligand-gated ion channel	glycine receptor, alpha 1	Gla1	LGIC
NVS_LGIC_rNNR_BungSens	rat	brain	Rat cortical membranes	ion channel	ligand-gated ion channel	cholinergic receptor, nicotinic, alpha 7 (neuronal)	Chrna7	LGIC
NVS_NR_cAR	chimpanzee	not applicable	Sf9/Sf21	nuclear receptor	steroidal	androgen receptor	AR	NR
NVS_NR_hAR	human	not applicable	LnCAP	nuclear receptor	steroidal	androgen receptor	AR	NR
NVS_NR_hGR	human	not applicable	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	NR
NVS_NR_HTRA_ANTAGONIST	human	not applicable	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, alpha	THRA	NR
NVS_NR_rAR	rat	prostate	Testosterone pre-treated rat prostate	nuclear receptor	steroidal	androgen receptor	AR	NR
NVS_NR_rMR	rat	brain	Adrenalectomized rat brain supernatant	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 2	Nr3c2	NR
NVS_OR_gSIGMA_NonSelective	guinea pig	brain	Guinea pig brain membranes	misc protein	chaperone	sigma non-opioid intracellular receptor 1	Sigmar1	OR
NVS_TR_gDAT	guinea pig	brain	Guinea pig striatal membranes	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter, dopamine), member 3	Slc6a3	TR
NVS_TR_hAdoT	human	not applicable	U937	transporter	nucleoside transporter	solute carrier family 29 (equilibrative nucleoside transporter), member 1	Slc29a1	TR
NVS_TR_hDAT	human	not applicable	not applicable	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter, dopamine), member 3	Slc6a3	TR
NVS_TR_HNET	human	not applicable	not applicable	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter), member 2	Slc6a2	TR
NVS_TR_HSERT	human	vascular	Human platelet membranes	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter), member 4	Slc6a4	TR
NVS_TR_rAdoT	rat	brain	Rat forebrain membranes	transporter	nucleoside transporter	solute carrier family 29 (equilibrative nucleoside transporter), member 1	Slc29a1	TR
NVS_TR_rNET	rat	brain	Rat forebrain membranes	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter), member 2	Slc6a2	TR
NVS_TR_rSERT	rat	brain	Rat forebrain membranes	transporter	neurotransmitter transporter	solute carrier family 6 (neurotransmitter transporter), member 4	Slc6a4	TR
NVS_TR_rVMAT2	rat	brain	Rat forebrain	transporter	vesicular transporter	solute carrier family 18 (vesicular monoamine transporter), member 2	Slc18a2	TR
ATG_Ahr_CIS_dn	human	liver	not applicable	dna binding	basic helix-loop-helix protein	aryl hydrocarbon receptor	AHR	not applicable
ATG_Ahr_CIS_up	human	liver	not applicable	dna binding	basic helix-loop-helix protein	aryl hydrocarbon receptor	AHR	not applicable
ATG_AR_TRANS_dn	human	liver	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
ATG_AR_TRANS_up	human	liver	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
ATG_ERa_TRANS_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
ATG_ERa_TRANS_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
ATG_ERb_TRANS2_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 2 (ER beta)	ESR2	not applicable
ATG_ERb_TRANS2_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 2 (ER beta)	ESR2	not applicable
ATG_ERE_CIS_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
ATG_ERE_CIS_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
ATG_ERRa_TRANS_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor alpha	ESRRA	not applicable
ATG_ERRa_TRANS_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor alpha	ESRRA	not applicable
ATG_ERRb_TRANS2_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor beta	ESRRB	not applicable
ATG_ERRb_TRANS2_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor beta	ESRRB	not applicable
ATG_ERRg_TRANS_dn	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor gamma	ESRRG	not applicable
ATG_ERRg_TRANS_up	human	liver	not applicable	nuclear receptor	steroidal	estrogen-related receptor gamma	ESRRG	not applicable
ATG_GPCR_ADORA2A_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adenosine A2a receptor	ADORA2A	not applicable
ATG_GPCR_ADORA2A_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adenosine A2a receptor	ADORA2A	not applicable
ATG_GPCR_ADORA2B_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adenosine A2b receptor	ADORA2B	not applicable
ATG_GPCR_ADORA2B_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adenosine A2b receptor	ADORA2B	not applicable
ATG_GPCR_ADRA1A_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor alpha 1A	ADRA1A	not applicable
ATG_GPCR_ADRA1A_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor alpha 1A	ADRA1A	not applicable
ATG_GPCR_ADRA2B_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2B	ADRA2B	not applicable
ATG_GPCR_ADRA2B_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor alpha 2B	ADRA2B	not applicable
ATG_GPCR_ADRB2_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor beta 2	ADRB2	not applicable

* ToxPi categorization was only done on assays in the NVS platform due to manageability and grouping.

Table #2: Potential neuro-relevant assays from platforms Attagene (ATG), Novascreen (NVS), and Tox21.

AssayComponentEndpointName	Organism	Tissue	CellFreeComponentSource	IntendedTargetFamily	IntendedTargetFamilySub	GeneName	GeneSymbol	ToxPI Slice*
ATG_GPCR_ADRB2_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor beta 2	ADRB2	not applicable
ATG_GPCR_ADRB3_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor beta 3	ADRB3	not applicable
ATG_GPCR_ADRB3_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	adrenoceptor beta 3	ADRB3	not applicable
ATG_GPCR_CHRM3_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 3	CHRM3	not applicable
ATG_GPCR_CHRM3_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	cholinergic receptor, muscarinic 3	CHRM3	not applicable
ATG_GPCR_DRD1_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	dopamine receptor D1	DRD1	not applicable
ATG_GPCR_DRD1_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	dopamine receptor D1	DRD1	not applicable
ATG_GPCR_DRD5_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	dopamine receptor D5	DRD5	not applicable
ATG_GPCR_DRD5_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	dopamine receptor D5	DRD5	not applicable
ATG_GPCR_HRH1_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	histamine receptor H1	HRH1	not applicable
ATG_GPCR_HRH1_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	histamine receptor H1	HRH1	not applicable
ATG_GPCR_HTR6_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 6, G protein-coupled	HTR6	not applicable
ATG_GPCR_HTR6_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 6, G protein-coupled	HTR6	not applicable
ATG_GPCR_HTR7_TRANS_dn	human	liver	not applicable	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 7, adenylylate cyclase-coupled	HTR7	not applicable
ATG_GPCR_HTR7_TRANS_up	human	liver	not applicable	gpcr	rhodopsin-like receptor	5-hydroxytryptamine (serotonin) receptor 7, adenylylate cyclase-coupled	HTR7	not applicable
ATG_GR_TRANS_dn	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
ATG_GR_TRANS_up	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
ATG_GRE_CIS_dn	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
ATG_GRE_CIS_up	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
ATG_MR_TRANS2_dn	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 2 (glucocorticoid receptor)	NR3C2	not applicable
ATG_MR_TRANS2_up	human	liver	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 2 (glucocorticoid receptor)	NR3C2	not applicable
ATG_THRa1_TRANS_dn	human	liver	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, alpha	THRA	not applicable
ATG_THRa1_TRANS_up	human	liver	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, alpha	THRA	not applicable
ATG_THRb_TRANS2_dn	human	liver	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, beta	THRB	not applicable
ATG_THRb_TRANS2_up	human	liver	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, beta	THRB	not applicable
TOX21_AhR_LUC_Agonist	human	liver	not applicable	DNA binding	basic helix-loop-helix protein	aryl hydrocarbon receptor	AHR	not applicable
TOX21_AR_BLA_Agonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_AR_BLA_Antagonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_AR_LUC_MDAKB2_Agonist	human	breast	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_AR_LUC_MDAKB2_Agonist_3uM_Niluta mide	human	breast	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_AR_LUC_MDAKB2_Antagonist_0.5nM_R1881	human	breast	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_AR_LUC_MDAKB2_Antagonist_10nM_R1881	human	breast	not applicable	nuclear receptor	steroidal	androgen receptor	AR	not applicable
TOX21_ARE_BLA_agonist_ratio	human	liver	not applicable	DNA binding	basic leucine zipper	nuclear factor, erythroid 2-like 2	NFE2L2	not applicable
TOX21_ERa_BLA_Agonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
TOX21_ERa_BLA_Antagonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	estrogen receptor 1	ESR1	not applicable
TOX21_ERb_BLA_Agonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	estrogen receptor 2 (ER beta)	ESR2	not applicable
TOX21_ERb_BLA_Antagonist_ratio	human	kidney	not applicable	nuclear receptor	steroidal	estrogen receptor 2 (ER beta)	ESR2	not applicable
TOX21_ERR_Agonist	human	kidney	not applicable	nuclear receptor	orphan	estrogen-related receptor alpha	ESRRA	not applicable
TOX21_ERR_Antagonist	human	kidney	not applicable	nuclear receptor	orphan	estrogen-related receptor alpha	ESRRA	not applicable
TOX21_ESRE_BLA_ratio	human	cervix	not applicable	DNA binding	basic leucine zipper	activating transcription factor 6	ATF6	not applicable
TOX21_GR_BLA_Agonist_ratio	human	cervix	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
TOX21_GR_BLA_Antagonist_ratio	human	cervix	not applicable	nuclear receptor	steroidal	nuclear receptor subfamily 3, group C, member 1 (glucocorticoid receptor)	NR3C1	not applicable
TOX21_PGC_ERR_Agonist	human	kidney	not applicable	nuclear receptor	orphan	estrogen-related receptor alpha	ESRRA	not applicable
TOX21_PGC_ERR_Antagonist	human	kidney	not applicable	nuclear receptor	orphan	estrogen-related receptor alpha	ESRRA	not applicable
TOX21_TR_LUC_GH3_Agonist	rat	pituitary gland	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, alpha[thyroid hormone receptor, beta	THRA THRB]	not applicable
TOX21_TR_LUC_GH3_Antagonist	rat	pituitary gland	not applicable	nuclear receptor	non-steroidal	thyroid hormone receptor, alpha[thyroid hormone receptor, beta	THRA THRB]	not applicable
TOX21_TSHR_Agonist_ratio	human	kidney	not applicable	gpcr	not applicable	thyroid stimulating hormone receptor	TSHR	not applicable
TOX21_TSHR_Antagonist_ratio	human	kidney	not applicable	gpcr	not applicable	thyroid stimulating hormone receptor	TSHR	not applicable
TOX21_TSHR_wt_ratio	human	kidney	not applicable	gpcr	baseline control	thyroid stimulating hormone receptor	TSHR	not applicable

* ToxPI categorization was only done on assays in the NVS platform due to manageability and grouping.

Table #3: Assay subset derived from the activity results across the nine organophosphate pesticides (DNT models)

ASSAY	Acephate (30560-19-1)	Carbaryl (63-25-2)	Carbofuran (1563-66-2)	Chlorpyrifos (2921-88-2)	Chlorpyrifos-oxon (5598-15-2)	Dichlorvos (62-73-7)	Dicrotophos (141-66-2)	Methamidophos (10265-92-6)	Methyl Parathion (298-00-0)
NVS_ENZ_HSYK_ACTIVATOR	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested
NVS_ENZ_HVEGFR1	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_HVEGFR1_ACTIVATOR	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_HVEGFR2	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_HVEGFR2_ACTIVATOR	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_OCOX1	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_ENZ_OCOX1_ACTIVATOR	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_ENZ_PMTHFR	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_ENZ_PMTHFR_ACTIVATOR	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_ENZ_RACHE	not tested	tested, active result	tested, active result	not tested	tested, active result	tested, active result	not tested	not tested	tested, but inactive
NVS_ENZ_RACHE_ACTIVATOR	not tested	tested, but inactive	tested, but inactive	not tested	tested, but inactive	tested, but inactive	not tested	not tested	tested, but inactive
NVS_ENZ_RCNOS	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RCNOS_ACTIVATOR	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RCOMT	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested
NVS_ENZ_RCOMT_ACTIVATOR	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOAC	not tested	tested, active result	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOAC_ACTIVATOR	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOAP	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOAP_ACTIVATOR	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOBC	not tested	tested, active result	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS_ENZ_RMAOBC_ACTIVATOR	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS_ENZ_RMAOBP	not tested	tested, active result	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_ENZ_RMAOBP_ACTIVATOR	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_GPCR_BH1	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested
NVS_GPCR_GLTB4	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, active result
NVS_GPCR_GLTD4	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested
NVS_GPCR_GMPERIPHERAL_NONSELECTIVE	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_GPCR_H5HT2A	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_GPCR_H5HT7	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested
NVS_GPCR_HADRB3	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, active result
NVS_GPCR_HDRD1	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_HH1	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_HLTB4_BLT1	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS_GPCR_HM2	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	tested, active result
NVS_GPCR_HM4	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, active result
NVS_GPCR_HNPY2	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, active result
NVS_GPCR_HNTS	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_GPCR_MCKKBCESTRAL	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_GPCR_R5HT1_NONSELECTIVE	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS_GPCR_RABPAF	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_GPCR_RADRA1A	not tested	tested, but inactive	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_GPCR_RADRA1B	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested
NVS_GPCR_RGABBR	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_GPCR_RGHB	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_RH3	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive
NVS_GPCR_RNTS	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_GPCR_ROPIATE_NONSELECTIVE	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_ROPIATE_NONSELECTIVENA	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_RSST	not tested	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested
NVS_GPCR_RTRH	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested
NVS_GPCR_RV1	not tested	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_GPCR_RVIP_NONSELECTIVE	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested	not tested
NVS_IC_RCACHN	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested	not tested
NVS_IC_RKAR	tested, but inactive	not tested	not tested	not tested	not tested	not tested	not tested	not tested	not tested
NVS_IC_RKATPCH	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	not tested
NVS_LGIC_BGABARA1	not tested	not tested	not tested	not tested	not tested	not tested	tested, but inactive	not tested	tested, but inactive
NVS_LGIC_RGABAR_NONSELECTIVE	not tested	not tested	not tested	tested, active result	not tested	not tested	not tested	not tested	not tested

Table #3: Assay subset derived from the activity results across the nine organophosphate pesticides (DNT models)

ASSAY	Acephate (30560-19-1)	Carbaryl (63-25-2)	Carbofuran (1563-66-2)	Chlorpyrifos (2921-88-2)	Chlorpyrifos-oxon (5598-15-2)	Dichlorvos (62-73-7)	Dicropthos (141-66-2)	Methamidophos (10265-92-6)	Methyl Parathion (298-00-0)	
TOX21_TSHR_ANTAGONIST_RATIO	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_TSHR_HTRF_AGONIST_CH1	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_TSHR_HTRF_ANTAGONIST_CH1	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_TSHR_WT_CH2	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_TSHR_WT_HTRF_CH1	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_TSHR_WT_RATIO	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_AGONIST_CH1	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_AGONIST_CH2	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_AGONIST_RATIO	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_AGONIST_VIABILITY	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_ANTAGONIST_CH1	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_ANTAGONIST_CH2	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_ANTAGONIST_RATIO	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOX21_VDR_BLA_ANTAGONIST_VIABILITY	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	
TOTAL NUMBER OF ACTIVE ASSAYS		807	804	668	633	791	783	760	776	873
TOTAL NUMBER OF TESTED ASSAYS		10	93	21	125	156	57	7	12	115
PERCENT ACTIVE		1%	12%	3%	20%	20%	7%	1%	2%	13%

Table #4: Assay subset derived from activity in nine organophosphate pesticides; filtered by assay activity in at least 3 chemicals. Cell viability assays not included.

ASSAY	Acephate 30560-19-1	Carbaryl 63-25-2	Carbofuran 1563-66-2	Chlorpyrifos 2921-88-2	Chlorpyrifos- oxon 5598-15-2	Dichlorvos 62-73-7	Dicrotophos 141-66-2	Methamidophos 10265-92-6	Methyl Parathion 298-00-0	number of hits
ACEA_AR_ANTAGONIST_8HR	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	4
ACEA_AR_ANTAGONIST_AUC_VIABILITY	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
ATG_AP_1_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_CMV_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
ATG_ERA_TRANS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_ERE_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	4
ATG_MRE_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
ATG_NRF2_ARE_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
ATG_OCT_MLP_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
ATG_PPARG_TRANS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_PPRE_CIS_UP	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_PXRE_CIS_UP	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	6
ATG_SREBP_CIS_UP	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_VDRE_CIS_UP	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	3
ATG_XBP1_CIS_UP	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	3
BSK_3C_ESELECTIN_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	3
BSK_3C_HLADR_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	4
BSK_3C_IL8_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_3C_MCP1_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	3
BSK_3C_UPAR_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_3C_VIS_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
BSK_4H_EOTAXIN3_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	3
BSK_4H_PSELECTIN_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
BSK_4H_VCAM1_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	4
BSK_HDFCGF_COLLAGENIII_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_HDFCGF_IP10_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	4

*number of pesticides that tested active for the assay

Table #4: Assay subset derived from activity in nine organophosphate pesticides; filtered by assay activity in at least 3 chemicals. Cell viability assays not included.

ASSAY	Acephate 30560-19-1	Carbaryl 63-25-2	Carbofuran 1563-66-2	Chlorpyrifos 2921-88-2	Chlorpyrifos- oxon 5598-15-2	Dichlorvos 62-73-7	Diclotophos 141-66-2	Methamidophos 10265-92-6	Methyl Parathion 298-00-0	number of hits
BSK_HDFCGF_MCSF_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	4
BSK_HDFCGF_VCAM1_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
BSK_KF3CT_MCP1_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_LPS_CD40_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
BSK_LPS_MCSF_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
BSK_LPS_PGE2_UP	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, active result	3
BSK_LPS_VCAM1_DOWN	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	4
BSK_SAG_CD38_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_SAG_CD40_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_SAG_CD69_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
BSK_SAG_ESELECTIN_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	3
BSK_SAG_MCP1_DOWN	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP1A1_6HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP1A2_24HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP1A2_48HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP1A2_6HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP2B6_24HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP2B6_48HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
CLD_CYP2B6_6HR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	4
NCCT_QUANTILUM_INHIB_DN	tested, but inactive	not tested	not tested	tested, active result	tested, but inactive	tested, active result	not tested	tested, active result	tested, active result	4
NCCT_TPO_AUR_DN	tested, active result	not tested	not tested	tested, active result	tested, active result	tested, active result	not tested	tested, active result	tested, active result	6
NHEERL_ZF_144HPF_TERATOSCORE_UP	tested, but inactive	tested, active result	not tested	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, active result	5
NVS_ADME_HCYP1A2	not tested	tested, active result	not tested	not tested	tested, active result	not tested	not tested	not tested	tested, active result	3
NVS_ADME_HCYP2C19	not tested	not tested	not tested	not tested	tested, active result	not tested	tested, active result	not tested	tested, active result	3
NVS_ENZ_HACHE	not tested	tested, active result	tested, active result	not tested	tested, active result	tested, active result	not tested	not tested	tested, but inactive	4

*number of pesticides that tested active for the assay

Table #4: Assay subset derived from activity in nine organophosphate pesticides; filtered by assay activity in at least 3 chemicals. Cell viability assays not included.

ASSAY	Acephate 30560-19-1	Carbaryl 63-25-2	Carbofuran 1563-66-2	Chlorpyrifos 2921-88-2	Chlorpyrifos- oxon 5598-15-2	Dichlorvos 62-73-7	Dicrotophos 141-66-2	Methamidophos 10265-92-6	Methyl Parathion 298-00-0	number of hits
NVS_ENZ_HES	not tested	not tested	tested, active result	tested, active result	tested, active result	tested, active result	tested, active result	not tested	tested, but inactive	5
NVS_ENZ_RACHE	not tested	tested, active result	tested, active result	not tested	tested, active result	tested, active result	not tested	not tested	tested, but inactive	4
NVS_MP_HPBR	tested, but inactive	tested, active result	tested, but inactive	not tested	tested, active result	tested, but inactive	not tested	tested, but inactive	tested, active result	3
NVS_MP_RPBR	tested, but inactive	tested, active result	not tested	not tested	tested, active result	tested, but inactive	not tested	tested, but inactive	tested, active result	3
NVS_NR_HGR	tested, active result	tested, active result	not tested	not tested	not tested	tested, active result	not tested	tested, but inactive	tested, active result	4
OT_FXR_FXRSRC1_0480	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
OT_FXR_FXRSRC1_1440	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
TOX21_AHR_LUC_AGONIST	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	3
TOX21_ARE_BLA_AGONIST_RATIO	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, active result	tested, but inactive	tested, but inactive	tested, active result	4
TOX21_DT40	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	5
TOX21_DT40_100	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	5
TOX21_DT40_657	tested, but inactive	tested, active result	tested, active result	tested, active result	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive	tested, active result	5
TOTAL NUMBER OF TESTED ASSAYS	58	59	49	49	62	61	55	58	63	
TOTAL NUMBER OF ACTIVE ASSAYS	3	41	7	47	53	31	4	3	44	
PERCENT ACTIVE	5%	69%	14%	96%	85%	51%	7%	5%	70%	

*number of pesticides that tested active for the assay

Table #5: Assays under the two subsets for oxidative stress and inflammation as grouped in Iyer et al., 2019

ASSAY	Biological Process	Molecular Target	FD&C Blue	FD&C Blue	FD&C Green	FD&C Red	FD&C Red	FD&C Yellow	FD&C Yellow
			No. 1	No. 2	No. 3	No. 3	No. 40	No. 5	No. 6
BSK_LPS_IL8_DOWN	induces oxidative stress	chemokine (C-X-C motif) ligand 8; interleukin	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_LPS_IL8_UP	induces oxidative stress	chemokine (C-X-C motif) ligand 8; interleukin	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_LPS_MCP1_DOWN	induces oxidative stress	chemokine (C-C motif) ligand 2; chemotactic factor	tested, but inactive	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
BSK_LPS_MCP1_UP	induces oxidative stress	chemokine (C-C motif) ligand 2; chemotactic factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_IL8_DOWN	induces oxidative stress	chemokine (C-X-C motif) ligand 8; interleukin	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_IL8_UP	induces oxidative stress	chemokine (C-X-C motif) ligand 8; interleukin	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_MCP1_DOWN	induces oxidative stress	chemokine (C-C motif) ligand 2; chemotactic factor	tested, but inactive	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_MCP1_UP	induces oxidative stress	chemokine (C-C motif) ligand 2; chemotactic factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_MIG_DOWN	induces oxidative stress	chemokine (C-X-C motif) ligand 9; chemotactic factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_SAG_MIG_UP	induces oxidative stress	chemokine (C-X-C motif) ligand 9; chemotactic factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_LPS_TNFA_DOWN	induces oxidative stress and chronic inflammation	tumor necrosis factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_LPS_TNFA_UP	induces oxidative stress and chronic inflammation	tumor necrosis factor	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_BE3C_TGFB1_DOWN	induces chronic inflammation	transforming growth factor, beta 1	tested, but inactive	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
BSK_BE3C_TGFB1_UP	induces chronic inflammation	transforming growth factor, beta 1	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
BSK_KF3CT_TGFB1_DOWN	induces chronic inflammation	transforming growth factor, beta 1	tested, but inactive	not tested	not tested	tested, active result	tested, but inactive	tested, but inactive	tested, but inactive
BSK_KF3CT_TGFB1_UP	induces chronic inflammation	transforming growth factor, beta 1	tested, but inactive	not tested	not tested	tested, but inactive	tested, but inactive	tested, but inactive	tested, but inactive
TOTAL NUMBER OF TESTED ASSAYS			50	0	0	50	50	50	50
TOTAL NUMBER OF ACTIVE ASSAYS			0	0	0	16	0	0	0
PERCENT ACTIVE			0%	0%	0%	32%	0%	0%	0%

