Top five significant hits, if any, within DRE: Agilent 15064 (45 sets/386 ROGLs; pvalue cutoff = 1/45 = 0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| APM\_5.83uM\_embryo\_24h.sig | APM\_5.83uM\_embryo | O2\_3mgL\_Ovary | TRB\_3ugL\_femaleOvary | tBHQ\_10uM\_embryo | O2\_1mgL\_Ovary |
| EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | FAD\_25ugL\_femaleOvary | TRB\_3ugL\_femaleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain |
| EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | EE2\_30ngL\_femaleOvary |
| EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_femaleOvary | TRB\_3ugL\_femaleBrain |
| EE2\_30ngL\_maleBrain\_96hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | FAD\_25ugL\_femaleOvary | TRB\_3ugL\_femaleBrain |
| EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | KET\_370ugL\_maleLiver |
| EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_femaleOvary | EE2\_30ngL\_maleBrain | FIP\_5ugL\_femaleBrain | TRI\_500ugL\_maleTestisLowDose |
| EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | TRB\_3ugL\_femaleLiver | EE2\_30ngL\_maleLiver | FIP\_5ugL\_maleTestis |
| EE2\_30ngL\_maleTestis\_96hr.sig | EE2\_30ngL\_maleTestis | FLU\_1700ugL\_maleTestis | tBHQ\_10uM\_embryo | VIN\_1000ugL\_maleTestis | FIP\_5ugL\_maleBrain |
| FAD\_25ugL\_femaleBrain\_48hr.sig | FAD\_25ugL\_femaleBrain | TRB\_3ugL\_femaleBrain | FAD\_25ugL\_maleBrain | FAD\_25ugL\_femaleOvary | EE2\_30ngL\_maleTestis |
| FAD\_25ugL\_femaleBrain\_96hr.sig | FAD\_25ugL\_femaleBrain | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | EE2\_30ngL\_maleBrain | EE2\_30ngL\_femaleOvary |
| FAD\_25ugL\_femaleOvary\_48hr.sig | FAD\_25ugL\_femaleOvary | EE2\_30ngL\_femaleOvary | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | EE2\_30ngL\_maleTestis |
| FAD\_25ugL\_femaleOvary\_48hr.sig | FAD\_25ugL\_femaleOvary | EE2\_30ngL\_femaleOvary | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | EE2\_30ngL\_maleBrain |
| FAD\_25ugL\_femaleOvary\_96hr.sig | FAD\_25ugL\_femaleOvary | EE2\_30ngL\_femaleOvary | FAD\_25ugL\_maleBrain | TRI\_500ugL\_maleTestisLowDose | TRB\_3ugL\_femaleBrain |
| FAD\_25ugL\_maleBrain\_96hr.sig | PRO\_500ugL\_femaleBrain | FIP\_5ugL\_femaleBrain | MUS\_500ugL\_femaleBrain | PRO\_500ugL\_femaleOvary | PRO\_500ugL\_maleTestis |
| FIP\_5ugL\_femaleOvary\_48hr.sig | FIP\_5ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | VIN\_1000ugL\_maleTestis |
| FIP\_5ugL\_maleTestis\_48hr.sig | FIP\_5ugL\_maleTestis | FIP\_5ugL\_femaleOvary | TRI\_2500ugL\_maleTestis | FIP\_5ugL\_maleBrain | FLU\_1700ugL\_maleTestis |
| FLU\_1700ugL\_femaleOvary\_48hr.sig | FLU\_1700ugL\_femaleOvary | FLU\_1700ugL\_maleTestis | PRO\_500ugL\_maleTestis | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary |
| FLU\_1700ugL\_maleTestis\_24hr.sig | FLU\_1700ugL\_maleTestis | VIN\_1000ugL\_maleTestis | PRO\_500ugL\_maleTestis | TRI\_2500ugL\_maleTestis | KET\_370ugL\_maleTestis |
| FLU\_1700ugL\_maleTestis\_48hr.sig | FLU\_1700ugL\_maleTestis | VIN\_1000ugL\_maleTestis | PRO\_500ugL\_maleTestis | TRI\_2500ugL\_maleTestis | KET\_370ugL\_maleTestis |
| KET\_370ugL\_femaleOvary\_24hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | FIP\_5ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | VIN\_1000ugL\_maleTestis |
| KET\_370ugL\_femaleOvary\_48hr.sig | KET\_370ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_femaleOvary | VIN\_1000ugL\_maleTestis |
| MUS\_500ugL\_femaleBrain\_48hr.sig | MUS\_500ugL\_femaleBrain | VIN\_1000ugL\_femaleOvary | MUS\_500ugL\_maleBrain | KET\_370ugL\_maleBrain | VIN\_1000ugL\_maleTestis |
| MUS\_500ugL\_maleBrain\_48hr.sig | MUS\_500ugL\_maleBrain | MUS\_500ugL\_femaleBrain | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_maleBrain | KET\_370ugL\_femaleOvary |
| O2\_1mgL\_Testis\_4d.sig | O2\_1mgL\_Testis | O2\_3mgL\_Ovary | EE2\_30ngL\_maleLiver | O2\_1mgL\_Ovary | VIN\_1000ugL\_maleTestis |
| PRO\_500ugL\_femaleBrain\_48hr.sig | FLU\_1700ugL\_maleTestis | PRO\_500ugL\_femaleBrain | PRO\_500ugL\_maleTestis | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig | PRO\_500ugL\_femaleOvary | FLU\_1700ugL\_femaleOvary | FLU\_1700ugL\_maleTestis | KET\_370ugL\_femaleOvary | PRO\_500ugL\_maleTestis |
| PRO\_500ugL\_maleTestis\_48hr.sig | FLU\_1700ugL\_maleTestis | PRO\_500ugL\_maleTestis | VIN\_1000ugL\_maleTestis | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary |
| TCDD\_2nM\_embryo\_6h.sig | TCDD\_2nM\_embryo | TCDD\_1ngmL\_embryo | TRI\_2500ugL\_femaleOvary | O2\_1mgL\_Ovary | PRO\_500ugL\_maleTestis |
| TRB\_3ugL\_femaleBrain\_96hr.sig | TRB\_3ugL\_femaleBrain | PRO\_500ugL\_femaleBrain | FIP\_5ugL\_femaleBrain | PRO\_500ugL\_femaleOvary | TRI\_500ugL\_maleTestisLowDose |
| TRB\_3ugL\_femaleOvary\_24hr.sig | TRB\_3ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | FLU\_1700ugL\_maleTestis | KET\_370ugL\_maleBrain |
| TRI\_2500ugL\_maleTestis\_24hr.sig | TRI\_2500ugL\_maleTestis | VIN\_1000ugL\_maleTestis | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | TRI\_500ugL\_maleTestisLowDose |
| VIN\_1000ugL\_femaleOvary\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | TRI\_2500ugL\_maleTestis | VIN\_1000ugL\_maleTestis | FIP\_5ugL\_femaleOvary |
| VIN\_1000ugL\_maleTestis\_24hr.sig | VIN\_1000ugL\_maleTestis | FLU\_1700ugL\_maleTestis | PRO\_500ugL\_maleTestis | TRI\_2500ugL\_maleTestis | VIN\_1000ugL\_femaleOvary |
| VIN\_1000ugL\_maleTestis\_48hr.sig | VIN\_1000ugL\_maleTestis | FLU\_1700ugL\_maleTestis | PRO\_500ugL\_maleTestis | TRI\_2500ugL\_maleTestis | VIN\_1000ugL\_femaleOvary |
| tBHQ\_10uM\_embryo\_6h.sig | tBHQ\_10uM\_embryo | TCDD\_1ngmL\_embryo | TCDD\_2nM\_embryo | O2\_1mgL\_Ovary | O2\_3mgL\_Ovary |

Top five significant hits, if any, within DRE: Agilent 19161 (39 sets/203 ROGLs; pvalue cutoff = 1/39 = 0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| BAA\_25uM\_embryo\_24hpf.sig | BAA\_25uM\_embryo | diazepam\_273ugL\_brain | prochloraz\_2mgL\_embryo | flutamide\_1.4mgL\_embryo | prochloraz\_1.7mgL\_embryo |
| BAA\_25uM\_embryo\_48hpf.sig | BAA\_25uM\_embryo | Estradiol\_5ugL\_maleLiver | PYR\_25uM\_embryo | prochloraz\_1.7mgL\_embryo | diazepam\_273ugL\_brain |
| BDE\_12500ngG\_embryo\_8days.sig | BDE\_12500ngG\_embryo | E2\_1uM\_embryo | EE2\_0.8mgL\_embryo | RDX\_15mgL\_fry | EE2\_0.65mgL\_embryo |
| BPA\_0.01ugL\_ovary\_96hr.sig | BPA\_0.01ugL\_ovary | BPA\_100ugL\_ovary | BPA\_1ugL\_ovary | BPA\_0.1ugL\_ovary | bisphenol\_8.5mgL\_embryo |
| BPA\_10ugL\_ovary\_96hr.sig | BPA\_100ugL\_ovary | BPA\_10ugL\_ovary | BPA\_1ugL\_ovary | BPA\_0.01ugL\_ovary | BPA\_0.1ugL\_ovary |
| E2\_1uM\_embryo\_4dpf.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | flutamide\_1.2mgL\_embryo |
| EE2\_0.65mgL\_embryo\_48hr.sig | EE2\_0.8mgL\_embryo | EE2\_0.65mgL\_embryo | Genistein\_2.4mgL\_embryo | methylparaben\_24.4mgL\_embryo | PYR\_25uM\_embryo |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | diazepam\_273ugL\_brain |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | PRO\_500ugL\_femaleOvary | methylparaben\_24.4mgL\_embryo | Genistein\_2.4mgL\_embryo |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | methylparaben\_24.4mgL\_embryo | methylparaben\_19.8mgL\_embryo | Genistein\_2.2mgL\_embryo |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | bisphenol\_8mgL\_embryo | PYR\_25uM\_embryo | bisphenol\_8.5mgL\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig | PRO\_500ugL\_femaleOvary | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain | linuron\_1.3mgL\_embryo |
| Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | methylparaben\_24.4mgL\_embryo | DBT\_25uM\_embryo | diazepam\_273ugL\_brain |
| Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | methylparaben\_24.4mgL\_embryo | methylparaben\_19.8mgL\_embryo | PKC412\_2ugL\_wholebody |
| PKC412\_2ugL\_wholebody\_6dpf.sig | PKC412\_2ugL\_wholebody | RDX\_15mgL\_fry | Genistein\_2.4mgL\_embryo | RDX\_7.5mgL\_fry | linuron\_1.2mgL\_embryo |
| PKC412\_2ugL\_wholebody\_6dpf.sig | PKC412\_2ugL\_wholebody | RDX\_7.5mgL\_fry | RDX\_15mgL\_fry | PKC412\_40ugL\_wholebody | RDX\_3.8mgL\_fry |
| PKC412\_40ugL\_wholebody\_6dpf.sig | PKC412\_2ugL\_wholebody | PKC412\_40ugL\_wholebody | RDX\_7.5mgL\_fry | diazepam\_273ngL\_brain | RDX\_15mgL\_fry |
| PRO\_500ugL\_femaleBrain\_48hr.sig | PRO\_500ugL\_femaleOvary | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain | linuron\_1.3mgL\_embryo |
| PRO\_500ugL\_femaleOvary\_48hr.sig | PRO\_500ugL\_femaleOvary | FLU\_1700ugL\_femaleOvary | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleBrain | linuron\_1.3mgL\_embryo |
| RDX\_15mgL\_fry\_96hr.sig | RDX\_7.5mgL\_fry | RDX\_15mgL\_fry | RDX\_3.8mgL\_fry | RDX\_1.9mgL\_fry | RDX\_0.9mgL\_fry |
| RDX\_3.8mgL\_fry\_96hr.sig | RDX\_3.8mgL\_fry | RDX\_7.5mgL\_fry | RDX\_15mgL\_fry | RDX\_1.9mgL\_fry | RDX\_0.9mgL\_fry |
| RDX\_7.5mgL\_fry\_96hr.sig | RDX\_7.5mgL\_fry | RDX\_15mgL\_fry | RDX\_3.8mgL\_fry | RDX\_1.9mgL\_fry | RDX\_0.9mgL\_fry |
| bisphenol\_8.5mgL\_embryo\_48hr.sig | bisphenol\_8mgL\_embryo | bisphenol\_8.5mgL\_embryo | EE2\_0.8mgL\_embryo | BAA\_25uM\_embryo | prochloraz\_2mgL\_embryo |
| bisphenol\_8mgL\_embryo\_48hr.sig | bisphenol\_8mgL\_embryo | bisphenol\_8.5mgL\_embryo | EE2\_0.8mgL\_embryo | BAA\_25uM\_embryo | prochloraz\_1.7mgL\_embryo |
| diazepam\_273ngL\_brain\_14d.sig | diazepam\_273ngL\_brain | diazepam\_273ugL\_brain | PKC412\_2ugL\_wholebody | RDX\_7.5mgL\_fry | RDX\_15mgL\_fry |
| diazepam\_273ugL\_brain\_14d.sig | diazepam\_273ngL\_brain | diazepam\_273ugL\_brain | PKC412\_2ugL\_wholebody | PKC412\_40ugL\_wholebody | RDX\_7.5mgL\_fry |
| linuron\_1.2mgL\_embryo\_48hr.sig | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | PKC412\_2ugL\_wholebody | bisphenol\_8mgL\_embryo | diazepam\_273ugL\_brain |
| linuron\_1.2mgL\_embryo\_48hr.sig | linuron\_1.2mgL\_embryo | Genistein\_2.4mgL\_embryo | linuron\_1.3mgL\_embryo | Genistein\_2.2mgL\_embryo | PKC412\_40ugL\_wholebody |
| linuron\_1.3mgL\_embryo\_48hr.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8mgL\_embryo | DBT\_25uM\_embryo | flutamide\_1.2mgL\_embryo |
| linuron\_1.3mgL\_embryo\_48hr.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_2ugL\_wholebody | DBT\_25uM\_embryo | EE2\_0.8mgL\_embryo |
| methylparaben\_19.8mgL\_embryo\_48hr.sig | methylparaben\_19.8mgL\_embryo | methylparaben\_24.4mgL\_embryo | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | PYR\_25uM\_embryo |
| methylparaben\_24.4mgL\_embryo\_48hr.sig | methylparaben\_24.4mgL\_embryo | methylparaben\_19.8mgL\_embryo | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | PYR\_25uM\_embryo |
| prochloraz\_1.7mgL\_embryo\_48hr.sig | prochloraz\_1.7mgL\_embryo | prochloraz\_2mgL\_embryo | E2\_1uM\_embryo | bisphenol\_8.5mgL\_embryo | methylparaben\_19.8mgL\_embryo |
| prochloraz\_2mgL\_embryo\_48hr.sig | prochloraz\_1.7mgL\_embryo | prochloraz\_2mgL\_embryo | E2\_1uM\_embryo | bisphenol\_8.5mgL\_embryo | bisphenol\_8mgL\_embryo |
| propanil\_1.1mgL\_embryo\_48hr.sig | propanil\_1.1mgL\_embryo | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | PKC412\_40ugL\_wholebody | PKC412\_2ugL\_wholebody |
| propanil\_1.1mgL\_embryo\_48hr.sig | propanil\_1.1mgL\_embryo | methylparaben\_24.4mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo |

Top five significant hits, if any, within FHM, Agilent FHM19597 (132 sets/1798 ROGLs; pvalue cutoff =1/132 =0.0076)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| bifenthrin\_0.15ugL\_larvae\_48hr.sig | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | Terbufos\_57.5ugL\_MaleBrain | PFCs\_Mix\_Liver | Mixture\_7.5P57.5TugL\_MaleBrain |
| bifenthrin\_0.15ugL\_larvae\_48hr.sig | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | Terbufos\_57.5ugL\_MaleBrain | Mixture\_7.5P57.5TugL\_MaleBrain | KTCTNTKTC\_0.5\_Ovary |
| bifenthrin\_0.15ugL\_larvae\_48hr.sig | bifenthrin\_0.15ugL\_larvae | cypermethrin\_1ugL\_larvae | cypermethrin\_0.5ugL\_larvae | Permethrin\_7.5ugL\_MaleBrain | Bifenthrin\_1.6ugL\_Larvae |
| bifenthrin\_0.15ugL\_larvae\_48hr.sig | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | Terbufos\_57.5ugL\_MaleBrain | esfenvalerate\_1ugL\_larvae | PFCs\_Low\_Liver |
| bifenthrin\_0.3ugL\_larvae\_48hr.sig | bifenthrin\_0.3ugL\_larvae | cypermethrin\_0.5ugL\_larvae | esfenvalerate\_1ugL\_larvae | esfenvalerate\_0.5ugL\_larvae | permethrin\_1.56ugL\_larvae |
| Bifenthrin\_1.6ugL\_Larvae\_48h.sig | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | Terbufos\_57.5ugL\_MaleBrain | Mixture\_7.5P57.5TugL\_MaleBrain | KTCTNTKTC\_0.5\_Ovary |
| cypermethrin\_1ugL\_larvae\_48hr.sig.subset | cypermethrin\_1ugL\_larvae | VZ\_385\_Ovary | permethrin\_1.56ugL\_larvae | cypermethrin\_1ugL\_larva | RDX\_0.01\_Ovary |
| DES\_100\_Liver\_96h.sig | phenanthrene\_High\_Liver | phenanthrene\_Med\_Liver | EE2\_25ngL\_Liver | ElyEFF\_999\_liver | DES\_10\_Liver |
| DES\_100\_Liver\_96h.sig | DES\_10\_Liver | E2a\_999\_MaleLiver | DES\_100\_Liver | GEM\_15\_Ovary | GEM\_600\_Ovary |
| DES\_1\_Liver\_96h.sig | EE2\_25ngL\_Liver | DES\_1\_Liver | phenanthrene\_High\_Liver | E2b\_X\_MaleLiver | DES\_100\_Liver |
| E2a\_999\_MaleLiver\_14d.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | E2b\_X\_MaleLiver | DES\_10\_Liver | phenanthrene\_Low\_Liver |
| E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | DES\_10\_Liver | ElyEFF\_999\_liver |
| EE2\_25ngL\_Liver\_72h.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | E2b\_X\_MaleLiver | DES\_10\_Liver | ElyEFF\_999\_liver |
| EFFHa\_5Perc\_MaleLiver\_14d.sig | EFFHa\_5Perc\_MaleLiver | EFFLa\_0.5Perc\_MaleLiver | bifenthrin\_0.15ugL\_larvae | HutchinsonDS\_999\_liver | Bifenthrin\_1.6ugL\_Larvae |
| EFFHb\_5Perc\_MaleLiver\_14d.sig | EFFHb\_5Perc\_MaleLiver | E2b\_X\_MaleLiver | Wastewater\_999\_Liver | HUTeffulent\_999\_Ovary | FAD\_30\_Ovary |
| ElyDS\_999\_liver\_4d.sig | ElyDS\_999\_liver | ElyEFF\_999\_liver | HutchinsonEFF\_999\_liver | ElyUS\_999\_liver | RochesterUS\_999\_liver\* |
| ElyEFF\_999\_liver\_4d.sig | ElyEFF\_999\_liver | ElyDS\_999\_liver | ElyUS\_999\_liver | HutchinsonEFF\_999\_liver | phenanthrene\_High\_Liver |
| ElyUS\_999\_liver\_4d.sig | ElyUS\_999\_liver | ElyEFF\_999\_liver | ElyDS\_999\_liver | PFCs\_Low\_Liver | HutchinsonEFF\_999\_liver |
| FAD\_50\_Ovary\_06h2h.sig | TbBPABPA\_10\_Ovary | WLSSD\_10perc\_Ovary | TbBPABPA\_100\_Ovary | RDX\_0.01\_Ovary |  |
| FAD\_5\_Ovary\_06h30m.sig | TbEE2TbEE2\_10\_Ovary | FLU\_50\_Ovary | TbTCCTB\_500\_Ovary |  |  |
| FLU\_500\_Ovary\_192h.sig | TB\_500\_Ovary | EE2\_0.1ngL\_MaleBrain | TB\_30\_Ovary | FLU\_500\_Ovary | HUTdownstream\_999\_Ovary |
| FLU\_500\_Ovary\_192hp.sig | EFFLa\_0.5Perc\_MaleLiver | TbBPABPA\_10\_Ovary | HUTdownstream\_999\_Ovary | BPA\_100\_Ovary | progesterone\_1uM\_Testis |
| FLU\_50\_Ovary\_96h.sig | FLU\_50\_Ovary | TbTCCTB\_500\_Ovary | WLSSD\_10perc\_Ovary |  |  |
| GEM\_15\_Ovary\_8d.sig | GEM\_600\_Ovary | GEM\_15\_Ovary | TbEE2TB\_500\_Ovary | ROCHdownstream\_999\_Ovary | TbEE2TbEE2\_10\_Ovary |
| GEM\_600\_Ovary\_8d.sig | GEM\_600\_Ovary | GEM\_15\_Ovary | TbEE2TbEE2\_10\_Ovary | ROCHdownstream\_999\_Ovary | TbEE2TB\_500\_Ovary |
| HutchinsonDS\_999\_liver\_4d.sig | HutchinsonDS\_999\_liver | RochesterUS\_999\_liver | RochesterDS\_999\_liver | ElyDS\_999\_liver | HutchinsonEFF\_999\_liver |
| HutchinsonEFF\_999\_liver\_4d.sig | HutchinsonEFF\_999\_liver | ElyEFF\_999\_liver | ElyDS\_999\_liver | ElyUS\_999\_liver | HutchinsonUS\_999\_liver |
| KTC\_150\_Ovary\_24h24h.sig | TbEE2EE2\_10\_Ovary |  |  |  |  |
| Permethrin\_7.5ugL\_MaleBrain\_72h.sig | Permethrin\_7.5ugL\_MaleBrain | Terbufos\_57.5ugL\_MaleBrain | EFFHa\_5Perc\_MaleLiver | EFFLa\_0.5Perc\_MaleLiver | EFFHb\_5Perc\_MaleLiver |
| phenanthrene\_High\_Liver\_48hr.sig | phenanthrene\_High\_Liver | phenanthrene\_Med\_Liver | ElyEFF\_999\_liver | ElyUS\_999\_liver | PFCs\_Low\_Liver |
| RochesterDS\_999\_liver\_4d.sig | RochesterDS\_999\_liver | RochesterUS\_999\_liver | HutchinsonUS\_999\_liver | ElyDS\_999\_liver | HutchinsonDS\_999\_liver |
| RochesterEFF\_999\_liver\_4d.sig | HutchinsonUS\_999\_liver | ElyUS\_999\_liver | RochesterEFF\_999\_liver | RochesterDS\_999\_liver | HutchinsonEFF\_999\_liver |
| RochesterUS\_999\_liver\_4d.sig | RochesterUS\_999\_liver | ElyDS\_999\_liver | RochesterDS\_999\_liver | ElyEFF\_999\_liver | HutchinsonEFF\_999\_liver |
| TB\_30\_Ovary\_192h.sig | TRI\_300\_Ovary | TRI\_1500\_Ovary | RDX\_0.83mgL\_Liver | EFFLa\_0.5Perc\_MaleLiver | bifenthrin\_0.148ugL\_brain |
| TB\_30\_Ovary\_24h.sig | TB\_30\_Ovary | FLU\_50\_Ovary | TbTCCTCC\_5\_Ovary | GEM\_600\_Ovary | GEM\_15\_Ovary |
| TB\_30\_Ovary\_96h.sig | TbTCCTCC\_5\_Ovary | TbTCCTCC\_1\_Ovary | WLSSD\_50perc\_Ovary | KTCvitro25fish\_999\_Ovary | PRO\_22\_Ovary |
| TB\_30\_Ovary\_96hp.sig | bifenthrin\_0.593ugL\_brain | FAD\_3\_Ovary | KTC\_315\_Ovary | Bifenthrin\_1.6ugL\_Larvae | PRO\_22\_Ovary |
| TB\_500\_Ovary\_192h.sig | RochesterUS\_999\_liver | WLSSD\_10perc\_Ovary | FAD\_50\_Ovary | E2a\_999\_MaleLiver |  |
| TB\_500\_Ovary\_24h.sig | RDX\_0.01\_Ovary | TbBPATbBPA\_100\_Ovary | TbEE2TbEE2\_10\_Ovary | TbBPATB\_500\_Ovary |  |
| TB\_500\_Ovary\_48h.sig | FLU\_50\_Ovary | FAD\_3\_Ovary | surfaceH2O\_999\_Testis | PRO\_2.5\_Ovary | KTC\_400\_Ovary |
| TB\_500\_Ovary\_96hp.sig | TB\_500\_Ovary | FLU\_500\_Ovary | KTC\_315\_Ovary |  |  |
| Terbufos\_57.5ugL\_MaleBrain\_72h.sig | Terbufos\_57.5ugL\_MaleBrain | Mixture\_7.5P57.5TugL\_MaleBrain | Permethrin\_7.5ugL\_MaleBrain | Bifenthrin\_1.6ugL\_Larvae | KTC\_40\_Ovary |
| TRI\_1500\_Ovary\_48hp.sig | FAD\_30\_Ovary | ELYdownstream\_999\_Ovary | FAD\_3\_Ovary | HUTeffulent\_999\_Ovary | FAD\_50\_Ovary |
| VZ\_200\_Ovary\_24h.sig | permethrin\_0.4ugL\_larvae |  |  |  |  |
| VZ\_700\_Ovary\_48h.sig | EE2\_0.1ngL\_MaleBrain | FLU\_50\_Ovary | PRO\_22\_Ovary | Terbufos\_57.5ugL\_MaleBrain | bifenthrin\_0.148ugL\_brain |
| Wastewater\_999\_Liver\_48h.sig | Wastewater\_999\_Liver | E2a\_999\_MaleLiver | cypermethrin\_0.2ugL\_larvae | surfaceH2O\_Ref\_Testis |  |

\*Estrogen-negative environmental samples by chemistry: Rochester US, Rochester DS, Ely US (Martinovic-Weigelt et al 2014)

Top five significant hits, if any, across platform within DRE from Agilent 15064 to 19161 (both IDs and logF by the target platform; pvalue cutoff=1/39=0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | bisphenol\_8.5mgL\_embryo |  |  |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | EE2\_0.8mgL\_embryo | EE2\_0.65mgL\_embryo | E2\_1uM\_embryo | flutamide\_1.4mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | RDX\_3.8mgL\_fry | RDX\_15mgL\_fry | RDX\_1.9mgL\_fry |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | PKC412\_40ugL\_wholebody | EE2\_0.8mgL\_embryo | FLU\_1700ugL\_femaleOvary |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | PKC412\_40ugL\_wholebody | FLU\_1700ugL\_femaleOvary | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_4hrs.sig | Estradiol\_5ugL\_maleLiver | prochloraz\_2mgL\_embryo | RDX\_15mgL\_fry | E2\_1uM\_embryo | prochloraz\_1.7mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | prochloraz\_2mgL\_embryo | Genistein\_2.4mgL\_embryo | DBT\_25uM\_embryo | BDE\_12500ngG\_embryo | linuron\_1.2mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.2mgL\_embryo | Genistein\_2.4mgL\_embryo | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | BPA\_0.01ugL\_ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.2mgL\_embryo | Genistein\_2.4mgL\_embryo | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | BPA\_0.01ugL\_ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.2mgL\_embryo | Genistein\_2.4mgL\_embryo | BPA\_0.01ugL\_ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.2mgL\_embryo | Genistein\_2.4mgL\_embryo | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.2mgL\_embryo | Genistein\_2.4mgL\_embryo | EE2\_0.8mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | E2\_1uM\_embryo | Estradiol\_5ugL\_maleLiver | Genistein\_2.4mgL\_embryo | Genistein\_2.2mgL\_embryo | BPA\_0.01ugL\_ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | BPA\_10ugL\_ovary | BPA\_0.01ugL\_ovary | BPA\_0.1ugL\_ovary |  |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.15064TO19161.FLU\_1700ugL\_femaleOvary\_48hr.sig | FLU\_1700ugL\_femaleOvary | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | linuron\_1.3mgL\_embryo | PRO\_500ugL\_femaleOvary |
| FLU\_1700ugL\_maleTestis\_24hr.sig.15064TO19161.FLU\_1700ugL\_femaleOvary\_48hr.sig | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain | PRO\_500ugL\_femaleOvary | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo |
| FLU\_1700ugL\_maleTestis\_48hr.sig.15064TO19161.FLU\_1700ugL\_femaleOvary\_48hr.sig | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleOvary | linuron\_1.3mgL\_embryo | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain |
| PRO\_500ugL\_femaleBrain\_48hr.sig.15064TO19161.PRO\_500ugL\_femaleBrain\_48hr.sig | PRO\_500ugL\_femaleBrain | PRO\_500ugL\_femaleOvary | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | linuron\_1.3mgL\_embryo |
| PRO\_500ugL\_femaleBrain\_48hr.sig.15064TO19161.PRO\_500ugL\_femaleOvary\_48hr.sig | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleOvary | linuron\_1.3mgL\_embryo | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain |
| PRO\_500ugL\_maleTestis\_48hr.sig.15064TO19161.PRO\_500ugL\_femaleBrain\_48hr.sig | PRO\_500ugL\_femaleOvary | PRO\_500ugL\_femaleBrain | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | linuron\_1.3mgL\_embryo |
| PRO\_500ugL\_maleTestis\_48hr.sig.15064TO19161.PRO\_500ugL\_femaleOvary\_48hr.sig | PRO\_500ugL\_femaleOvary | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | linuron\_1.3mgL\_embryo | PRO\_500ugL\_femaleBrain |

Top five significant hits, if any, across platform within DRE from 19161 to 15064 (both IDs and LogF by target platform; pvalue cutoff 1/45=0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | FIP\_5ugL\_maleBrain |  |  |  |  |
| E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | EE2\_30ngL\_maleTestis | TRB\_3ugL\_femaleLiver | O2\_3mgL\_Testis | VIN\_1000ugL\_femaleOvary |
| E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | FIP\_5ugL\_maleTestis |
| E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | FIP\_5ugL\_maleTestis | EE2\_30ngL\_maleLiver | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleLiver | FLU\_1700ugL\_maleTestis | TRB\_3ugL\_femaleOvary | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleLiver | KET\_370ugL\_femaleLiver | O2\_3mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | FLU\_1700ugL\_maleTestis | FIP\_5ugL\_maleTestis | FIP\_5ugL\_femaleBrain | FIP\_5ugL\_maleBrain |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleOvary | TRB\_3ugL\_femaleLiver | FAD\_25ugL\_femaleBrain |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleLiver | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | EE2\_30ngL\_maleLiver | FIP\_5ugL\_maleTestis | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | O2\_1mgL\_Ovary | FIP\_5ugL\_maleTestis | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | EE2\_30ngL\_maleLiver | FAD\_25ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | TRB\_3ugL\_femaleOvary | FAD\_25ugL\_femaleBrain |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | TRI\_2500ugL\_femaleOvary | KET\_370ugL\_maleLiver | O2\_3mgL\_Testis |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleBrain | O2\_1mgL\_Ovary | FIP\_5ugL\_maleBrain | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | O2\_3mgL\_Testis | EE2\_30ngL\_maleLiver | FIP\_5ugL\_maleTestis | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | KET\_370ugL\_maleLiver | FLU\_1700ugL\_femaleOvary |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | O2\_3mgL\_Testis | KET\_370ugL\_maleLiver | FLU\_1700ugL\_maleTestis |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleBrain | TRI\_2500ugL\_femaleOvary | TRB\_3ugL\_femaleBrain | FLU\_1700ugL\_maleTestis |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.19161TO15064.FLU\_1700ugL\_femaleOvary\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_maleBrain | VIN\_1000ugL\_maleTestis | FIP\_5ugL\_femaleOvary |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.19161TO15064.FLU\_1700ugL\_maleTestis\_24hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FLU\_1700ugL\_maleTestis | MUS\_500ugL\_maleBrain |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.19161TO15064.FLU\_1700ugL\_maleTestis\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | VIN\_1000ugL\_maleTestis | MUS\_500ugL\_maleBrain |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | tBHQ\_10uM\_embryo | KET\_370ugL\_maleTestis | EE2\_30ngL\_maleLiver | EE2\_30ngL\_maleTestis |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | tBHQ\_10uM\_embryo | TCDD\_2nM\_embryo | EE2\_30ngL\_maleLiver | EE2\_30ngL\_maleTestis |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | TCDD\_2nM\_embryo | EE2\_30ngL\_maleTestis | FIP\_5ugL\_femaleOvary |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | TRB\_3ugL\_femaleOvary | O2\_3mgL\_Ovary | O2\_1mgL\_Ovary | KET\_370ugL\_femaleLiver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | FLU\_1700ugL\_maleTestis | EE2\_30ngL\_maleTestis |  |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | FLU\_1700ugL\_maleTestis | TRI\_2500ugL\_femaleOvary |  |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | KET\_370ugL\_maleBrain | TCDD\_2nM\_embryo | KET\_370ugL\_maleTestis | APM\_5.83uM\_embryo |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | TRB\_3ugL\_femaleOvary | O2\_1mgL\_Ovary | tBHQ\_10uM\_embryo | TRB\_3ugL\_femaleBrain |
| PRO\_500ugL\_femaleBrain\_48hr.sig.19161TO15064.PRO\_500ugL\_femaleBrain\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_maleBrain | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| PRO\_500ugL\_femaleBrain\_48hr.sig.19161TO15064.PRO\_500ugL\_femaleOvary\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | TRI\_2500ugL\_maleTestis | FIP\_5ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.19161TO15064.PRO\_500ugL\_femaleBrain\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_femaleOvary | TRB\_3ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.19161TO15064.PRO\_500ugL\_femaleOvary\_48hr.sig | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | TRB\_3ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |

Top five significant hits, if any, From DRE to FHM: Agilent 15064 to 19597 (both IDs and LogF by target species; pvalue cutoff 1/132 =0.0076)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | E2b\_X\_MaleLiver | ElyEFF\_999\_liver | phenanthrene\_High\_Liver |  |  |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | VZ\_385\_Ovary |  |  |  |  |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | E2a\_999\_MaleLiver | surfaceH2O\_999\_Liver | EE2\_25ngL\_Liver | surfaceH2O\_Ref\_Liver |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | phenanthrene\_High\_Liver | phenanthrene\_Med\_Liver |  |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19597.E2b\_X\_MaleLiver\_14d.sig | EFFHb\_5Perc\_MaleLiver | E2b\_X\_MaleLiver | RDX\_0.83mgL\_Liver | surfaceH2O\_999\_Liver |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver |  |  |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver |  |  |  |  |
| EE2\_30ngL\_maleBrain\_96hr.sig.15064TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | EFFHb\_5Perc\_MaleLiver | surfaceH2O\_999\_Liver | RDX\_0.83mgL\_Liver | surfaceH2O\_Ref\_Liver |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | DES\_10\_Liver | EE2\_25ngL\_Liver | HutchinsonUS\_999\_liver | E2a\_999\_MaleLiver | TbTCCTBTCC\_5\_Ovary |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | RochesterEFF\_999\_liver | DES\_10\_Liver | phenanthrene\_Med\_Liver | HutchinsonUS\_999\_liver | RochesterUS\_999\_liver |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | TbTCCTCC\_1\_Ovary | TbTCCTBTCC\_5\_Ovary | ELYdownstream\_999\_Ovary | DES\_10\_Liver |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | DES\_10\_Liver | HutchinsonUS\_999\_liver | TbTCCTBTCC\_5\_Ovary | RochesterEFF\_999\_liver |

Top five significant hits, if any, from DRE to FHM: Agilent 19161 to 19597 (both IDs and gene expression status by target species; pvalue cutoff 1/132= 0.0076)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | DES\_10\_Liver | EFFHa\_5Perc\_MaleLiver | KTC\_400\_Ovary | EFFLa\_0.5Perc\_MaleLiver | Bifenthrin\_1.6ugL\_Larvae |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | Streamwater\_999\_Liver | EFFLa\_0.5Perc\_MaleLiver | RochesterDS\_999\_liver | EFFHa\_5Perc\_MaleLiver | BPA\_10\_Ovary |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | ElyEFF\_999\_liver | E2b\_X\_MaleLiver | ElyDS\_999\_liver | FLU\_500\_Ovary | TB\_500\_Ovary |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | HutchinsonUS\_999\_liver | TbTCCTB\_500\_Ovary | E2b\_X\_MaleLiver |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | RochesterDS\_999\_liver | DES\_10\_Liver | esfenvalerate\_1ugL\_larvae |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | TbTCCTCC\_1\_Ovary | FLU\_50\_Ovary |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | EFFLa\_0.5Perc\_MaleLiver | ELYeffulent\_999\_Ovary | EFFHa\_5Perc\_MaleLiver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | RochesterUS\_999\_liver | HutchinsonUS\_999\_liver | DES\_10\_Liver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | ELYeffulent\_999\_Ovary | TbBPABPA\_10\_Ovary |  |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.E2a\_999\_MaleLiver\_14d.sig | E2a\_999\_MaleLiver | TbTCCTCC\_1\_Ovary | TbTCCTBTCC\_5\_Ovary | TbTCCTB\_500\_Ovary | EE2\_25ngL\_Liver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | EFFHa\_5Perc\_MaleLiver | phenanthrene\_High\_Liver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | E2b\_X\_MaleLiver | RochesterUS\_999\_liver | HutchinsonUS\_999\_liver |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | DES\_10\_Liver | PFCs\_High\_Blood |  |  |  |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | phenanthrene\_High\_Liver | phenanthrene\_Med\_Liver | ElyEFF\_999\_liver | ElyUS\_999\_liver\* | DES\_10\_Liver |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | phenanthrene\_Med\_Liver | phenanthrene\_High\_Liver | ElyEFF\_999\_liver | GEM\_15\_Ovary |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | phenanthrene\_High\_Liver | EE2\_25ngL\_Liver | EFFHa\_5Perc\_MaleLiver | E2b\_X\_MaleLiver | phenanthrene\_Med\_Liver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.DES\_100\_Liver\_96h.sig | E2a\_999\_MaleLiver | E2b\_X\_MaleLiver | Terbufos\_57.5ugL\_MaleBrain |  |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.DES\_100\_Liver\_96h.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | E2b\_X\_MaleLiver | TbBPABPA\_10\_Ovary | DES\_10\_Liver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.DES\_100\_Liver\_96h.sig | E2a\_999\_MaleLiver | PFCs\_Low\_Liver | PFCs\_High\_Liver | PFCs\_Mix\_Liver | EE2\_25ngL\_Liver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.E2a\_999\_MaleLiver\_14d.sig | E2a\_999\_MaleLiver | DES\_10\_Liver | E2b\_X\_MaleLiver | KTCTNTKTC\_0.5\_Ovary | TbTCCTCC\_1\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.E2a\_999\_MaleLiver\_14d.sig | E2a\_999\_MaleLiver | TbTCCTCC\_5\_Ovary | KTCTNTKTC\_0.5\_Ovary | TbTCCTCC\_1\_Ovary | KTC\_400\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | E2b\_X\_MaleLiver | Bifenthrin\_1.6ugL\_Larvae | E2a\_999\_MaleLiver | bifenthrin\_0.15ugL\_larvae | EE2\_25ngL\_Liver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | E2b\_X\_MaleLiver | PFCs\_High\_Liver |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | E2b\_X\_MaleLiver | RDX\_0.1\_Ovary | PFCs\_High\_Blood |

\*Estrogen-negative environmental samples by chemistry: Rochester US, Rochester DS, Ely US (Martinovic-Weigelt et al 2014)

Top five significant hits, if any, from FHM to DRE: Agilent 19597 to 15064 (both IDs and gene expression status by target species; pvalue cutoff 1/45=0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | EE2\_30ngL\_maleBrain | FLU\_1700ugL\_femaleOvary | FAD\_25ugL\_femaleOvary |  |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | FAD\_25ugL\_femaleBrain | EE2\_30ngL\_femaleOvary |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | TRB\_3ugL\_femaleOvary | FAD\_25ugL\_maleBrain | VIN\_1000ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | FAD\_25ugL\_femaleBrain | DNP\_14.2uM\_embryo | KET\_370ugL\_maleLiver | FLU\_1700ugL\_maleTestis |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | FLU\_1700ugL\_maleTestis | TRB\_3ugL\_femaleLiver | DNP\_14.2uM\_embryo | TCDD\_1ngmL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | FAD\_25ugL\_femaleBrain |
| DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | FLU\_1700ugL\_maleTestis | VIN\_1000ugL\_maleTestis | FAD\_25ugL\_femaleBrain | TRB\_3ugL\_femaleOvary |
| DES\_1\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver |  |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | FLU\_1700ugL\_maleTestis |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | EE2\_30ngL\_maleTestis | FAD\_25ugL\_maleBrain | EE2\_30ngL\_femaleOvary | TRB\_3ugL\_femaleBrain |
| E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleLiver | APM\_5.83uM\_embryo |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleBrain | APM\_5.83uM\_embryo | EE2\_30ngL\_maleLiver | FAD\_25ugL\_maleBrain |
| E2b\_X\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | EE2\_30ngL\_maleTestis | TRB\_3ugL\_femaleBrain | KET\_370ugL\_maleBrain |
| E2b\_X\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | FLU\_1700ugL\_maleTestis | TRB\_3ugL\_femaleLiver | DNP\_14.2uM\_embryo |
| E2b\_X\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleLiver | EE2\_30ngL\_maleBrain | O2\_3mgL\_Testis |  |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_femaleOvary\_96hr.sig | EE2\_30ngL\_femaleOvary | FAD\_25ugL\_femaleOvary | TRB\_3ugL\_femaleOvary | FLU\_1700ugL\_maleTestis |  |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | EE2\_30ngL\_maleBrain | FAD\_25ugL\_maleBrain | TRB\_3ugL\_femaleBrain | TRB\_3ugL\_femaleLiver | TRB\_3ugL\_femaleOvary |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_maleLiver | KET\_370ugL\_maleBrain |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleLiver | EE2\_30ngL\_maleBrain | TRB\_3ugL\_femaleBrain | FAD\_25ugL\_femaleBrain |
| TB\_30\_Ovary\_192h.sig.19597TO15064.TRB\_3ugL\_femaleBrain\_96hr.sig | TRB\_3ugL\_femaleBrain |  |  |  |  |
| TB\_30\_Ovary\_24h.sig.19597TO15064.TRB\_3ugL\_femaleBrain\_96hr.sig | TRB\_3ugL\_femaleBrain | FLU\_1700ugL\_maleTestis | FIP\_5ugL\_maleTestis | FIP\_5ugL\_maleBrain | PRO\_500ugL\_maleTestis |

Top five significant hits, if any, from FHM to DRE: Agilent 19597 to 19161 (both IDs and LogF by target species; pvalue cutoff 1/39=0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | diazepam\_273ngL\_brain | Genistein\_2.2mgL\_embryo | bisphenol\_8.5mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver |  |  |  |  |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | BDE\_12500ngG\_embryo | RDX\_0.9mgL\_fry |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | RDX\_0.9mgL\_fry | linuron\_1.3mgL\_embryo | EE2\_0.65mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | bisphenol\_8.5mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | bisphenol\_8mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | flutamide\_1.4mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | linuron\_1.2mgL\_embryo | BAA\_25uM\_embryo | prochloraz\_2mgL\_embryo | linuron\_1.3mgL\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | prochloraz\_2mgL\_embryo | Estradiol\_5ugL\_maleLiver |
| DES\_1\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | bisphenol\_8mgL\_embryo |  |  |  |
| DES\_1\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo |  |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | DBT\_25uM\_embryo |  |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo | bisphenol\_8.5mgL\_embryo | PKC412\_40ugL\_wholebody | BDE\_12500ngG\_embryo |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | bisphenol\_8.5mgL\_embryo | PKC412\_40ugL\_wholebody | BDE\_12500ngG\_embryo | diazepam\_273ngL\_brain |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo |  |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo |  |  |  |  |
| E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | bisphenol\_8.5mgL\_embryo | BDE\_12500ngG\_embryo | PKC412\_40ugL\_wholebody | bisphenol\_8mgL\_embryo |
| E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | BDE\_12500ngG\_embryo | bisphenol\_8.5mgL\_embryo | RDX\_1.9mgL\_fry |
| E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | Genistein\_2.2mgL\_embryo | linuron\_1.3mgL\_embryo |
| E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_2ugL\_wholebody | linuron\_1.3mgL\_embryo | PKC412\_40ugL\_wholebody |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | Estradiol\_5ugL\_maleLiver | RDX\_15mgL\_fry | RDX\_7.5mgL\_fry | RDX\_3.8mgL\_fry | RDX\_1.9mgL\_fry |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | BDE\_12500ngG\_embryo | bisphenol\_8.5mgL\_embryo | methylparaben\_19.8mgL\_embryo |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | BDE\_12500ngG\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_100ugL\_ovary |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | Genistein\_2.4mgL\_embryo | methylparaben\_19.8mgL\_embryo | methylparaben\_24.4mgL\_embryo | bisphenol\_8mgL\_embryo | bisphenol\_8.5mgL\_embryo |

Target species IDs + source gene expression status (ie source gene signature IDs only swapped with orthologous target IDs)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **15064 to 19597** | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| EE2\_30ngL\_femaleOvary\_96hr.sig | cypermethrin\_1ugL\_brain | E2b\_X\_MaleLiver | TbBPATB\_500\_Ovary | RDX\_7.5mgL\_fry | FAD\_5\_Ovary |
| EE2\_30ngL\_maleBrain\_48hr.sig | GEM\_15\_Ovary | cypermethrin\_1ugL\_brain | VZ\_700\_Ovary | VZ\_200\_Ovary | TbBPATbBPA\_100\_Ovary |
| EE2\_30ngL\_maleBrain\_48hr.sig | RDX\_0.01\_Ovary | ROCHdownstream\_999\_Ovary | dihydrotestosterone\_1uM\_Ovary | TbEE2EE2\_1\_Ovary | DES\_10\_Liver |
| EE2\_30ngL\_maleBrain\_96hr.sig | EFFLa\_0.5Perc\_MaleLiver | TbBPATbBPA\_100\_Ovary | TbBPATB\_500\_Ovary | TbBPATbBPA\_10\_Ovary | VZ\_700\_Ovary |
| EE2\_30ngL\_maleLiver\_48hr.sig | HutchinsonUS\_999\_liver | RochesterUS\_999\_liver | DES\_10\_Liver | RochesterDS\_999\_liver | EFFHa\_5Perc\_MaleLiver |
| EE2\_30ngL\_maleTestis\_48hr.sig | esfenvalerate\_0.5ugL\_larvae | VZ\_700\_Ovary |  |  |  |
| EE2\_30ngL\_maleTestis\_48hr.sig | FLU\_500\_Ovary | FLU\_50\_Ovary | WLSSD\_50perc\_Ovary | PRO\_300\_Ovary | TbTCCTBTCC\_5\_Ovary |
| TRB\_3ugL\_femaleBrain\_96hr.sig | KTC\_999\_Ovary | PRO\_300\_Ovary | FAD\_30\_Ovary | TbBPATbBPA\_100\_Ovary | FAD\_50\_Ovary |
| TRB\_3ugL\_femaleOvary\_24hr.sig | TbEE2EE2\_10\_Ovary | BPA\_0.01\_Ovary |  |  |  |
| **19161 to 19597** |  |  |  |  |  |
| E2\_1uM\_embryo\_4dpf.sig | dihydrotestosterone\_1uM\_Ovary | TB\_500\_Ovary | TbBPATbBPA\_100\_Ovary | PRO\_300\_Ovary | PFCs\_High\_Blood |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig | E2b\_X\_MaleLiver | EE2\_25ngL\_Liver | EFFHb\_5Perc\_MaleLiver | E2a\_999\_MaleLiver | phenanthrene\_Low\_Liver |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig | EE2\_25ngL\_Liver | E2a\_999\_MaleLiver | EFFLa\_0.5Perc\_MaleLiver |  |  |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig | E2a\_999\_MaleLiver | EE2\_25ngL\_Liver | DES\_10\_Liver | RochesterUS\_999\_liver | RochesterDS\_999\_liver |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig | ElyEFF\_999\_liver | ElyDS\_999\_liver | phenanthrene\_Med\_Liver | E2b\_X\_MaleLiver | GEM\_15\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig | PFCs\_Low\_Blood | TbEE2EE2\_10\_Ovary | E2a\_999\_MaleLiver |  |  |
| Genistein\_2.4mgL\_embryo\_48hr.sig | TbEE2TB\_500\_Ovary | FLU\_500\_Ovary | ELYeffulent\_999\_Ovary |  |  |
| RDX\_15mgL\_fry\_96hr.sig | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | PFCs\_Low\_Liver | esfenvalerate\_1ugL\_larvae | Terbufos\_57.5ugL\_MaleBrain |
| RDX\_3.8mgL\_fry\_96hr.sig | ElyEFF\_999\_liver | ElyDS\_999\_liver | bifenthrin\_0.15ugL\_larvae | Bifenthrin\_1.6ugL\_Larvae | ElyUS\_999\_liver |
| RDX\_7.5mgL\_fry\_96hr.sig | bifenthrin\_0.15ugL\_larvae | Bifenthrin\_1.6ugL\_Larvae | ElyUS\_999\_liver | Stormwater\_999\_Liver | PFCs\_Low\_Liver |
| **19597 to 15064** |  |  |  |  |  |
| DES\_100\_Liver\_96h.sig | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | FLU\_1700ugL\_maleTestis | O2\_1mgL\_Testis | FAD\_25ugL\_femaleBrain |
| DES\_100\_Liver\_96h.sig | EE2\_30ngL\_maleLiver | DNP\_14.2uM\_embryo | FLU\_1700ugL\_maleTestis | DMB\_509uM\_embryo | MUS\_500ugL\_femaleOvary |
| DES\_1\_Liver\_96h.sig | TRI\_2500ugL\_femaleOvary | EE2\_30ngL\_maleLiver | MUS\_500ugL\_femaleOvary |  |  |
| E2a\_999\_MaleLiver\_14d.sig | EE2\_30ngL\_maleLiver | KET\_370ugL\_femaleLiver | APM\_5.83uM\_embryo | KET\_370ugL\_maleLiver | DNP\_14.2uM\_embryo |
| E2b\_X\_MaleLiver\_14d.sig | DNP\_14.2uM\_embryo | EE2\_30ngL\_maleLiver | DMB\_509uM\_embryo | FLU\_1700ugL\_maleTestis | O2\_1mgL\_Testis |
| EE2\_25ngL\_Liver\_72hSatNov081349322014.sig.subset100 | EE2\_30ngL\_maleLiver | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | KET\_370ugL\_maleLiver | TRI\_2500ugL\_femaleOvary |
| TB\_30\_Ovary\_192h.sig | FIP\_5ugL\_femaleOvary | FIP\_5ugL\_maleBrain | O2\_1mgL\_Testis | VIN\_1000ugL\_femaleOvary |  |
| TB\_30\_Ovary\_96hp.sig | KET\_370ugL\_femaleLiver |  |  |  |  |
| TB\_500\_Ovary\_48h.sig | APM\_5.83uM\_embryo |  |  |  |  |
| **19597 to 19161** |  |  |  |  |  |
| DES\_100\_Liver\_96h.sig | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | RDX\_0.9mgL\_fry | bisphenol\_8.5mgL\_embryo | BDE\_12500ngG\_embryo |
| DES\_100\_Liver\_96h.sig | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | PKC412\_2ugL\_wholebody |
| DES\_1\_Liver\_96h.sig | Estradiol\_5ugL\_maleLiver |  |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig | BPA\_10ugL\_ovary | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | linuron\_1.2mgL\_embryo |
| E2b\_X\_MaleLiver\_14d.sig | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo | linuron\_1.3mgL\_embryo | Estradiol\_5ugL\_maleLiver |
| EE2\_25ngL\_Liver\_72hSatNov081349322014.sig.subset100 | PKC412\_40ugL\_wholebody | Estradiol\_5ugL\_maleLiver | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |

Top 25 connections within platforms of DRE (self-self and same class of chemicals excluded) across all comparisons of signatures-ROGLs. All p-values = 1E-04.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **Agilent design** | **Abs (set score/STD)** |
| VIN\_1000ugL\_femaleOvary | 10 | KET\_370ugL\_femaleOvary\_24hr.sig | 100 | Agilent15064 | 23.58 |
| FLU\_1700ugL\_maleTestis | 15 | VIN\_1000ugL\_maleTestis\_24hr.sig | 100 | Agilent15064 | 22.93 |
| VIN\_1000ugL\_maleTestis | 15 | FLU\_1700ugL\_maleTestis\_48hr.sig | 100 | Agilent15064 | 21.98 |
| KET\_370ugL\_femaleOvary | 15 | VIN\_1000ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 21.97 |
| FLU\_1700ugL\_maleTestis | 15 | VIN\_1000ugL\_maleTestis\_48hr.sig | 100 | Agilent15064 | 21.14 |
| VIN\_1000ugL\_maleTestis | 15 | FLU\_1700ugL\_maleTestis\_24hr.sig | 100 | Agilent15064 | 21.12 |
| VIN\_1000ugL\_femaleOvary | 10 | KET\_370ugL\_femaleOvary\_48hr.sig | 75 | Agilent15064 | 20.52 |
| TRI\_2500ugL\_maleTestis | 15 | VIN\_1000ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 19.65 |
| FIP\_5ugL\_femaleOvary | 10 | KET\_370ugL\_femaleOvary\_24hr.sig | 100 | Agilent15064 | 19.63 |
| VIN\_1000ugL\_maleTestis | 15 | VIN\_1000ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 19.61 |
| MUS\_500ugL\_femaleOvary | 5 | KET\_370ugL\_femaleOvary\_24hr.sig | 100 | Agilent15064 | 19.35 |
| FLU\_1700ugL\_maleTestis | 15 | PRO\_500ugL\_maleTestis\_48hr.sig | 93 | Agilent15064 | 19.18 |
| EE2\_30ngL\_femaleOvary | 5 | FAD\_25ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 18.98 |
| VIN\_1000ugL\_femaleOvary | 10 | MUS\_500ugL\_femaleBrain\_48hr.sig | 100 | Agilent15064 | 18.94 |
| FLU\_1700ugL\_maleTestis | 15 | PRO\_500ugL\_femaleBrain\_48hr.sig | 100 | Agilent15064 | 18.77 |
| MUS\_500ugL\_maleBrain | 10 | MUS\_500ugL\_femaleBrain\_48hr.sig | 100 | Agilent15064 | 18.70 |
| FIP\_5ugL\_femaleOvary | 10 | VIN\_1000ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 18.64 |
| MUS\_500ugL\_femaleOvary | 5 | VIN\_1000ugL\_femaleOvary\_48hr.sig | 100 | Agilent15064 | 18.44 |
| PRO\_500ugL\_femaleOvary | 8 | FLU\_1700ugL\_femaleOvary\_48hr.sig | 100 | Agilent19161 | 18.38 |
| MUS\_500ugL\_femaleOvary | 5 | KET\_370ugL\_femaleOvary\_48hr.sig | 75 | Agilent15064 | 18.09 |
| FAD\_25ugL\_maleBrain | 5 | EE2\_30ngL\_maleBrain\_48hr.sig | 100 | Agilent15064 | 17.97 |
| KET\_370ugL\_maleBrain | 5 | MUS\_500ugL\_femaleBrain\_48hr.sig | 100 | Agilent15064 | 17.96 |
| VIN\_1000ugL\_maleTestis | 15 | KET\_370ugL\_femaleOvary\_24hr.sig | 100 | Agilent15064 | 17.91 |
| FIP\_5ugL\_femaleOvary | 10 | KET\_370ugL\_femaleOvary\_48hr.sig | 75 | Agilent15064 | 17.68 |
| EE2\_30ngL\_maleTestis | 9 | EE2\_30ngL\_maleBrain\_48hr.sig | 100 | Agilent15064 | 17.63 |

Top 25 connections within FHM (self-self and same class of chemicals excluded) across all comparisons of signatures-ROGLs.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| ElyEFF\_999\_liver | 5 | HutchinsonEFF\_999\_liver\_4d.sig | 100 | 1.00E-04 | 18.36 |
| ElyDS\_999\_liver | 7 | RochesterUS\_999\_liver\_4d.sig | 100 | 1.00E-04 | 17.24 |
| FAD\_30\_Ovary | 59 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 17.02 |
| Terbufos\_57.5ugL\_MaleBrain | 13 | bifenthrin\_0.15ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 15.44 |
| HutchinsonEFF\_999\_liver | 6 | RochesterUS\_999\_liver\_4d.sig | 100 | 1.00E-04 | 15.40 |
| Terbufos\_57.5ugL\_MaleBrain | 13 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig | 100 | 1.00E-04 | 14.41 |
| phenanthrene\_High\_Liver | 5 | DES\_100\_Liver\_96h.sig | 100 | 1.00E-04 | 14.04 |
| ELYdownstream\_999\_Ovary | 5 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 13.92 |
| Terbufos\_57.5ugL\_MaleBrain | 13 | bifenthrin\_0.15ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 13.65 |
| FAD\_3\_Ovary | 63 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 12.71 |
| E2b\_X\_MaleLiver | 6 | EFFHb\_5Perc\_MaleLiver\_14d.sig | 81 | 1.00E-04 | 12.67 |
| PFCs\_Low\_Liver | 4 | ElyUS\_999\_liver\_4d.sig | 100 | 1.00E-04 | 12.40 |
| DES\_10\_Liver | 5 | EE2\_25ngL\_Liver\_72h.sig | 100 | 1.00E-04 | 12.15 |
| phenanthrene\_Med\_Liver | 5 | DES\_100\_Liver\_96h.sig | 100 | 1.00E-04 | 11.91 |
| HUTeffulent\_999\_Ovary | 6 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 11.84 |
| cypermethrin\_0.5ugL\_larvae | 10 | bifenthrin\_0.3ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 11.72 |
| PFCs\_Mix\_Liver | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 11.43 |
| FAD\_50\_Ovary | 64 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 11.38 |
| DES\_10\_Liver | 5 | E2b\_X\_MaleLiver\_14d.sig | 100 | 1.00E-04 | 11.12 |
| Terbufos\_57.5ugL\_MaleBrain | 13 | bifenthrin\_0.15ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 11.10 |
| FLU\_500\_Ovary | 57 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 11.09 |
| Mixture\_7.5P57.5TugL\_MaleBrain | 6 | bifenthrin\_0.15ugL\_larvae\_48hr.sig | 100 | 1.00E-04 | 11.08 |
| EE2\_25ngL\_Liver | 8 | DES\_100\_Liver\_96h.sig | 100 | 1.00E-04 | 11.00 |
| Mixture\_7.5P57.5TugL\_MaleBrain | 6 | Terbufos\_57.5ugL\_MaleBrain\_72h.sig | 100 | 1.00E-04 | 10.97 |
| WLSSD\_100perc\_Ovary | 4 | TRI\_1500\_Ovary\_48hp.sig | 82 | 1.00E-04 | 10.50 |

Top 25 connections across platforms of DRE. Only signatures mapped to a target platform with the same or similar class of chemicals queried against target ROGLs are listed (target IDs + target LogFC)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 82 | 1.00E-04 | 18.13 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 77 | 1.00E-04 | 17.12 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 60 | 1.00E-04 | 17.03 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 66 | 1.00E-04 | 16.73 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | 14 | 1.00E-04 | 13.84 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 51 | 1.00E-04 | 13.27 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | 6 | 1.00E-04 | 13.18 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | 9 | 1.00E-04 | 13.07 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | 8 | 1.00E-04 | 12.55 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 66 | 1.00E-04 | 12.44 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 33 | 1.00E-04 | 12.32 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 8 | 1.00E-04 | 12.16 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 9 | 1.00E-04 | 12.08 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | 5 | 1.00E-04 | 12.05 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | 23 | 1.00E-04 | 12.05 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 6 | 1.00E-04 | 11.30 |
| EE2\_30ngL\_maleLiver | 6 | E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 25 | 1.00E-04 | 10.77 |
| EE2\_30ngL\_maleTestis | 9 | E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | 15 | 1.00E-04 | 10.36 |
| E2\_1uM\_embryo | 14 | EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 9 | 1.00E-04 | 10.35 |
| EE2\_30ngL\_maleTestis | 9 | E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 25 | 1.00E-04 | 10.25 |
| TRB\_3ugL\_femaleLiver | 5 | E2\_1uM\_embryo\_4dpf.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 25 | 1.00E-04 | 10.14 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 82 | 1.00E-04 | 9.92 |
| VIN\_1000ugL\_femaleOvary | 10 | PRO\_500ugL\_femaleOvary\_48hr.sig.19161TO15064.PRO\_500ugL\_femaleOvary\_48hr.sig | 10 | 1.00E-04 | 9.25 |
| EE2\_30ngL\_maleLiver | 6 | Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 30 | 1.00E-04 | 9.21 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.E2\_1uM\_embryo\_4dpf.sig | 14 | 1.00E-04 | 9.20 |

Top 25 connections from DRE to FHM: Agilent 19161/15064 to 19597 (target IDs + target LogFC)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| EE2\_25ngL\_Liver | 8 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 33 | 1.00E-04 | 8.37 |
| EE2\_25ngL\_Liver | 8 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | 23 | 1.00E-04 | 7.10 |
| EE2\_25ngL\_Liver | 8 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 18 | 1.00E-04 | 7.01 |
| EE2\_25ngL\_Liver | 8 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 22 | 1.00E-04 | 6.82 |
| E2a\_999\_MaleLiver | 4 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 22 | 1.00E-04 | 6.78 |
| DES\_10\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | 23 | 1.00E-04 | 6.67 |
| HutchinsonUS\_999\_liver | 6 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | 23 | 1.00E-04 | 6.59 |
| EE2\_25ngL\_Liver | 8 | Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 20 | 1.00E-04 | 6.48 |
| phenanthrene\_High\_Liver | 5 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | 12 | 1.00E-04 | 6.48 |
| DES\_10\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | 13 | 1.00E-04 | 6.44 |
| E2a\_999\_MaleLiver | 4 | Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.E2a\_999\_MaleLiver\_14d.sig | 7 | 1.00E-04 | 6.38 |
| E2a\_999\_MaleLiver | 4 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 33 | 1.00E-04 | 6.35 |
| EE2\_25ngL\_Liver | 8 | Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 18 | 1.00E-04 | 6.34 |
| E2b\_X\_MaleLiver | 6 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | 14 | 1.00E-04 | 6.33 |
| RochesterEFF\_999\_liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | 16 | 1.00E-04 | 6.05 |
| DES\_10\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.DES\_100\_Liver\_96h.sig | 16 | 1.00E-04 | 5.86 |
| TbTCCTBTCC\_5\_Ovary | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | 23 | 1.00E-04 | 5.84 |
| E2b\_X\_MaleLiver | 6 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | 19 | 1.00E-04 | 5.76 |
| EE2\_25ngL\_Liver | 8 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | 14 | 1.00E-04 | 5.75 |
| E2a\_999\_MaleLiver | 4 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.EE2\_25ngL\_Liver\_72h.sig | 18 | 1.00E-04 | 5.63 |
| RochesterEFF\_999\_liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.EE2\_25ngL\_Liver\_72h.sig | 23 | 1.00E-04 | 5.62 |
| phenanthrene\_Med\_Liver | 5 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | 19 | 1.00E-04 | 5.47 |
| phenanthrene\_Med\_Liver | 5 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.DES\_100\_Liver\_96h.sig | 12 | 1.00E-04 | 5.46 |
| E2a\_999\_MaleLiver | 4 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.E2a\_999\_MaleLiver\_14d.sig | 5 | 1.00E-04 | 5.45 |
| ElyEFF\_999\_liver | 5 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.E2b\_X\_MaleLiver\_14d.sig | 12 | 1.00E-04 | 5.44 |

Top 25 connections across species from FHM to DRE. Only signatures mapped to a target species with the same or similar class of chemicals queried against target ROGLs are listed (target IDs + target LogFC)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| EE2\_30ngL\_maleLiver | 6 | DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 80 | 1.00E-04 | 16.79 |
| EE2\_30ngL\_maleLiver | 6 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 71 | 1.00E-04 | 15.11 |
| EE2\_30ngL\_maleLiver | 6 | E2b\_X\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 69 | 1.00E-04 | 14.08 |
| EE2\_30ngL\_maleLiver | 6 | DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 67 | 1.00E-04 | 13.93 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 44 | 1.00E-04 | 13.07 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 41 | 1.00E-04 | 12.46 |
| EE2\_30ngL\_maleLiver | 6 | E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 50 | 1.00E-04 | 12.16 |
| Estradiol\_5ugL\_maleLiver | 12 | E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 32 | 1.00E-04 | 11.19 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 35 | 1.00E-04 | 11.01 |
| Estradiol\_5ugL\_maleLiver | 12 | E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 31 | 1.00E-04 | 10.27 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 29 | 1.00E-04 | 9.66 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | 15 | 1.00E-04 | 9.13 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_12hrs.sig | 14 | 1.00E-04 | 8.85 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 20 | 1.00E-04 | 8.36 |
| Estradiol\_5ugL\_maleLiver | 12 | E2b\_X\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 19 | 1.00E-04 | 7.99 |
| Estradiol\_5ugL\_maleLiver | 12 | E2a\_999\_MaleLiver\_14d.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 21 | 1.00E-04 | 7.88 |
| PKC412\_40ugL\_wholebody | 3 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_24hrs.sig | 41 | 1.00E-04 | 7.57 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.19597TO19161.Estradiol\_5ugL\_maleLiver\_48hrs.sig | 19 | 1.00E-04 | 7.45 |
| EE2\_30ngL\_maleBrain | 10 | DES\_100\_Liver\_96h.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | 25 | 1.00E-04 | 7.43 |
| Genistein\_2.4mgL\_embryo | 4 | DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | 14 | 1.00E-04 | 7.21 |
| TRB\_3ugL\_femaleLiver | 5 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleLiver\_48hr.sig | 71 | 1.00E-04 | 7.16 |
| EE2\_30ngL\_maleBrain | 10 | E2a\_999\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | 22 | 1.00E-04 | 7.13 |
| Genistein\_2.4mgL\_embryo | 4 | DES\_100\_Liver\_96h.sig.19597TO19161.Genistein\_2.4mgL\_embryo\_48hr.sig | 14 | 1.00E-04 | 7.06 |
| EE2\_30ngL\_maleTestis | 9 | EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.EE2\_30ngL\_maleTestis\_48hr.sig | 18 | 1.00E-04 | 7.02 |
| EE2\_30ngL\_maleBrain | 10 | E2b\_X\_MaleLiver\_14d.sig.19597TO15064.EE2\_30ngL\_maleBrain\_48hr.sig | 25 | 1.00E-04 | 6.91 |

**Following four tables used a maximum of 100 DEGs per signature**

Top five significant hits, if any, across platform within DRE from Agilent 15064 to 19161 (target IDs + source LogFC; pvalue cutoff=1/39=0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
|  |  |  |  |  |  |
| EE2\_30ngL\_femaleOvary\_96hr.sig.EntrySwapped | PKC412\_40ugL\_wholebody | Genistein\_2.2mgL\_embryo | E2\_1uM\_embryo | linuron\_1.3mgL\_embryo | PKC412\_2ugL\_wholebody |
| EE2\_30ngL\_maleBrain\_48hr.sig.EntrySwapped | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | PKC412\_2ugL\_wholebody | BPA\_10ugL\_ovary |
| EE2\_30ngL\_maleBrain\_48hr.sig.EntrySwapped | linuron\_1.3mgL\_embryo | PKC412\_2ugL\_wholebody | linuron\_1.2mgL\_embryo |  |  |
| EE2\_30ngL\_maleBrain\_96hr.sig.EntrySwapped | FLU\_1700ugL\_femaleOvary | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo |  |  |
| EE2\_30ngL\_maleLiver\_48hr.sig.EntrySwapped | Estradiol\_5ugL\_maleLiver | linuron\_1.3mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | flutamide\_1.2mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.EntrySwapped | E2\_1uM\_embryo |  |  |  |  |
| EE2\_30ngL\_maleTestis\_48hr.sig.EntrySwapped | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleBrain | BPA\_10ugL\_ovary | PKC412\_40ugL\_wholebody |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.EntrySwapped | PKC412\_40ugL\_wholebody | flutamide\_1.2mgL\_embryo | BPA\_10ugL\_ovary | RDX\_0.9mgL\_fry |  |
| FLU\_1700ugL\_maleTestis\_24hr.sig.EntrySwapped | RDX\_15mgL\_fry | FLU\_1700ugL\_femaleOvary | linuron\_1.2mgL\_embryo |  |  |
| FLU\_1700ugL\_maleTestis\_48hr.sig.EntrySwapped | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | Estradiol\_5ugL\_maleLiver | FLU\_1700ugL\_femaleOvary | diazepam\_273ugL\_brain |
| PRO\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | flutamide\_1.2mgL\_embryo | Estradiol\_5ugL\_maleLiver |  |  |  |
| PRO\_500ugL\_femaleOvary\_48hr.sig.EntrySwapped | bisphenol\_8mgL\_embryo |  |  |  |  |
| PRO\_500ugL\_maleTestis\_48hr.sig.EntrySwapped | Estradiol\_5ugL\_maleLiver |  |  |  |  |

Top 25 connections across platforms of DRE (Agilent 15064 to 19161; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| RDX\_15mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 11.06 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.EntrySwapped | 46 | 1.00E-04 | 10.73 |
| RDX\_3.8mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 9.48 |
| BAA\_25uM\_embryo | 8 | TCDD\_2nM\_embryo\_6h.sig.EntrySwapped | 70 | 1.00E-04 | 8.03 |
| E2\_1uM\_embryo | 14 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 7.81 |
| RDX\_7.5mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 7.75 |
| EE2\_0.65mgL\_embryo | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 6.79 |
| BDE\_12500ngG\_embryo | 3 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 6.44 |
| EE2\_0.8mgL\_embryo | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 6.23 |
| RDX\_0.9mgL\_fry | 3 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 6.12 |
| bisphenol\_8mgL\_embryo | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 5.93 |
| PKC412\_40ugL\_wholebody | 3 | MUS\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | 67 | 1.00E-04 | 5.83 |
| PYR\_25uM\_embryo | 8 | TCDD\_2nM\_embryo\_6h.sig.EntrySwapped | 70 | 1.00E-04 | 5.36 |
| BPA\_0.1ugL\_ovary | 5 | O2\_1mgL\_Testis\_4d.sig.EntrySwapped | 16 | 1.00E-04 | 5.30 |
| DBT\_25uM\_embryo | 8 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 5.27 |
| linuron\_1.2mgL\_embryo | 4 | O2\_1mgL\_Testis\_4d.sig.EntrySwapped | 16 | 1.00E-04 | 5.20 |
| flutamide\_1.4mgL\_embryo | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 5.09 |
| linuron\_1.3mgL\_embryo | 4 | O2\_1mgL\_Testis\_4d.sig.EntrySwapped | 16 | 1.00E-04 | 4.97 |
| DBT\_25uM\_embryo | 8 | TCDD\_2nM\_embryo\_6h.sig.EntrySwapped | 70 | 1.00E-04 | 4.85 |
| BPA\_10ugL\_ovary | 6 | MUS\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | 67 | 1.00E-04 | 4.81 |
| RDX\_15mgL\_fry | 4 | TCDD\_2nM\_embryo\_6h.sig.EntrySwapped | 70 | 1.00E-04 | 4.76 |
| BPA\_0.01ugL\_ovary | 5 | O2\_1mgL\_Testis\_4d.sig.EntrySwapped | 16 | 1.00E-04 | 4.59 |
| PKC412\_40ugL\_wholebody | 3 | KET\_370ugL\_femaleOvary\_24hr.sig.EntrySwapped | 67 | 1.00E-04 | 4.55 |
| RDX\_1.9mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.EntrySwapped | 81 | 1.00E-04 | 4.55 |
| linuron\_1.3mgL\_embryo | 4 | EE2\_30ngL\_maleBrain\_48hr.sig.EntrySwapped | 29 | 1.00E-04 | 4.53 |

Top 25 connections across platforms of DRE (Agilent 19161 to 15064; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.EntrySwapped | 56 | 1.00E-04 | 13.42 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.EntrySwapped | 42 | 1.00E-04 | 12.01 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.EntrySwapped | 42 | 1.00E-04 | 9.41 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.EntrySwapped | 56 | 1.00E-04 | 7.74 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.EntrySwapped | 61 | 1.00E-04 | 7.43 |
| EE2\_30ngL\_maleTestis | 9 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 7.40 |
| EE2\_30ngL\_maleTestis | 9 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 7.40 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.EntrySwapped | 61 | 1.00E-04 | 7.37 |
| DMB\_509uM\_embryo | 8 | prochloraz\_2mgL\_embryo\_48hr.sig.EntrySwapped | 44 | 1.00E-04 | 7.06 |
| DMB\_509uM\_embryo | 8 | prochloraz\_1.7mgL\_embryo\_48hr.sig.EntrySwapped | 35 | 1.00E-04 | 7.03 |
| EE2\_30ngL\_maleLiver | 6 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 6.78 |
| EE2\_30ngL\_maleLiver | 6 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 6.78 |
| tBHQ\_10uM\_embryo | 4 | BDE\_12500ngG\_embryo\_8days.sig.EntrySwapped | 13 | 1.00E-04 | 6.53 |
| tBHQ\_10uM\_embryo | 4 | BDE\_12500ngG\_embryo\_8days.sig.EntrySwapped | 13 | 1.00E-04 | 6.53 |
| TRB\_3ugL\_femaleLiver | 5 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 6.47 |
| TRB\_3ugL\_femaleLiver | 5 | E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | 12 | 1.00E-04 | 6.47 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_4hrs.sig.EntrySwapped | 41 | 1.00E-04 | 5.64 |
| DNP\_14.2uM\_embryo | 8 | linuron\_1.3mgL\_embryo\_48hr.sig.EntrySwapped | 43 | 1.00E-04 | 5.51 |
| MUS\_500ugL\_femaleOvary | 5 | PRO\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | 17 | 1.00E-04 | 5.49 |
| APM\_5.83uM\_embryo | 8 | bisphenol\_8mgL\_embryo\_48hr.sig.EntrySwapped | 46 | 1.00E-04 | 5.27 |
| O2\_1mgL\_Ovary | 11 | propanil\_1.1mgL\_embryo\_48hr.sig.EntrySwapped | 52 | 1.00E-04 | 5.14 |
| DNP\_14.2uM\_embryo | 8 | linuron\_1.3mgL\_embryo\_48hr.sig.EntrySwapped | 37 | 1.00E-04 | 5.12 |
| EE2\_30ngL\_maleLiver | 6 | methylparaben\_24.4mgL\_embryo\_48hr.sig.EntrySwapped | 44 | 1.00E-04 | 5.10 |
| tBHQ\_10uM\_embryo | 4 | diazepam\_273ugL\_brain\_14d.sig.EntrySwapped | 49 | 1.00E-04 | 5.10 |
| VIN\_1000ugL\_femaleOvary | 10 | PRO\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | 17 | 1.00E-04 | 5.07 |

Top five significant hits, if any, across platform within DRE from Agilent 19161 to 15064 (target IDs + source LogFC; pvalue cutoff=1/45=0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| E2\_1uM\_embryo\_4dpf.sig.EntrySwapped | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | O2\_3mgL\_Testis | O2\_1mgL\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.EntrySwapped | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TCDD\_2nM\_embryo | TRI\_2500ugL\_femaleOvary | TCDD\_1ngmL\_embryo |
| Genistein\_2.4mgL\_embryo\_48hr.sig.EntrySwapped | APM\_5.83uM\_embryo | TCDD\_1ngmL\_embryo | tBHQ\_10uM\_embryo |  |  |
| prochloraz\_1.7mgL\_embryo\_48hr.sig.EntrySwapped | DMB\_509uM\_embryo | TRB\_3ugL\_femaleBrain | tBHQ\_10uM\_embryo | TCDD\_1ngmL\_embryo | O2\_1mgL\_Testis |
| prochloraz\_2mgL\_embryo\_48hr.sig.EntrySwapped | DMB\_509uM\_embryo | tBHQ\_10uM\_embryo | APM\_5.83uM\_embryo | PRO\_500ugL\_femaleBrain | EE2\_30ngL\_maleLiver |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.EntrySwapped | TRB\_3ugL\_femaleLiver | EE2\_30ngL\_maleLiver | O2\_1mgL\_Ovary | tBHQ\_10uM\_embryo | DNP\_14.2uM\_embryo |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleLiver | O2\_3mgL\_Testis |  |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | TRI\_2500ugL\_femaleOvary | KET\_370ugL\_maleLiver | TCDD\_2nM\_embryo |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | O2\_1mgL\_Testis | O2\_3mgL\_Testis | TCDD\_2nM\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.EntrySwapped | MUS\_500ugL\_femaleOvary | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleBrain | VIN\_1000ugL\_femaleOvary | TRB\_3ugL\_femaleLiver |
| PRO\_500ugL\_femaleBrain\_48hr.sig.EntrySwapped | MUS\_500ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | MUS\_500ugL\_maleBrain | KET\_370ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.EntrySwapped | MUS\_500ugL\_femaleOvary | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleBrain | VIN\_1000ugL\_femaleOvary |

**Tables from here on are all based on target IDs + source logFC with up to 500 DEGs per signature. A greater number of DEGs are probably required for cross-platform/species queries.**

Top five significant hits, if any, across platform within DRE from Agilent 15064 to 19161 (target IDs + source LogFC; pvalue cutoff=1/39=0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Signatures | 1st match | 2nd match | 3rd match | 4th match | 5th match |
| EE2\_30ngL\_femaleOvary\_96hr.sig.500.EntrySwapped | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.500.EntrySwapped | diazepam\_273ngL\_brain | diazepam\_273ugL\_brain | RDX\_0.9mgL\_fry | EE2\_0.65mgL\_embryo | RDX\_7.5mgL\_fry |
| EE2\_30ngL\_maleBrain\_48hr.sig.500.EntrySwapped | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleBrain | linuron\_1.3mgL\_embryo | Estradiol\_5ugL\_maleLiver | FLU\_1700ugL\_femaleOvary |
| EE2\_30ngL\_maleBrain\_96hr.sig.500.EntrySwapped | PRO\_500ugL\_femaleBrain | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | Estradiol\_5ugL\_maleLiver | linuron\_1.3mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | RDX\_3.8mgL\_fry | RDX\_15mgL\_fry | RDX\_7.5mgL\_fry | PKC412\_40ugL\_wholebody |
| EE2\_30ngL\_maleTestis\_48hr.sig.500.EntrySwapped | Genistein\_2.2mgL\_embryo | BPA\_0.1ugL\_ovary | bisphenol\_8mgL\_embryo | BPA\_10ugL\_ovary | DBT\_25uM\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.500.EntrySwapped | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PRO\_500ugL\_femaleBrain | BPA\_10ugL\_ovary | PYR\_25uM\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | flutamide\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | propanil\_1.1mgL\_embryo | RDX\_0.9mgL\_fry |
| FLU\_1700ugL\_maleTestis\_24hr.sig.500.EntrySwapped | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | flutamide\_1.2mgL\_embryo | linuron\_1.2mgL\_embryo | DBT\_25uM\_embryo |
| FLU\_1700ugL\_maleTestis\_48hr.sig.500.EntrySwapped | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | FLU\_1700ugL\_femaleOvary | PKC412\_40ugL\_wholebody | flutamide\_1.2mgL\_embryo |
| PRO\_500ugL\_femaleBrain\_48hr.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | PRO\_500ugL\_femaleBrain | Genistein\_2.4mgL\_embryo | flutamide\_1.2mgL\_embryo | PRO\_500ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | PRO\_500ugL\_femaleOvary | FLU\_1700ugL\_femaleOvary | PRO\_500ugL\_femaleBrain |  |  |
| PRO\_500ugL\_maleTestis\_48hr.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | PRO\_500ugL\_femaleOvary\* | PRO\_500ugL\_femaleBrain\* |  |  |

\*p-value 0.035 and 0.038 respectively.

Top 25 connections across platforms of DRE (Agilent 15064 to 19161; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 306 | 1.00E-04 | 26.11 |
| RDX\_15mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 15.38 |
| RDX\_3.8mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 11.72 |
| RDX\_7.5mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 10.89 |
| BAA\_25uM\_embryo | 8 | TCDD\_2nM\_embryo\_6h.sig.500.EntrySwapped | 70 | 1.00E-04 | 7.89 |
| RDX\_3.8mgL\_fry | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 306 | 1.00E-04 | 6.86 |
| bisphenol\_8mgL\_embryo | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 6.66 |
| RDX\_1.9mgL\_fry | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 6.36 |
| RDX\_0.9mgL\_fry | 3 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 6.32 |
| RDX\_15mgL\_fry | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 306 | 1.00E-04 | 6.26 |
| E2\_1uM\_embryo | 14 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 5.86 |
| flutamide\_1.2mgL\_embryo | 4 | FLU\_1700ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | 336 | 1.00E-04 | 5.75 |
| RDX\_7.5mgL\_fry | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 306 | 1.00E-04 | 5.48 |
| PYR\_25uM\_embryo | 8 | TCDD\_2nM\_embryo\_6h.sig.500.EntrySwapped | 70 | 1.00E-04 | 5.40 |
| BPA\_0.1ugL\_ovary | 5 | O2\_1mgL\_Testis\_4dSatJan311850042015.sig.500.EntrySwapped | 16 | 1.00E-04 | 5.40 |
| PKC412\_40ugL\_wholebody | 3 | FLU\_1700ugL\_maleTestis\_24hr.sig.500.EntrySwapped | 320 | 1.00E-04 | 5.28 |
| PKC412\_40ugL\_wholebody | 3 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 306 | 1.00E-04 | 5.24 |
| linuron\_1.2mgL\_embryo | 4 | O2\_1mgL\_Testis\_4dSatJan311850042015.sig.500.EntrySwapped | 16 | 1.00E-04 | 5.23 |
| Estradiol\_5ugL\_maleLiver | 12 | VIN\_1000ugL\_maleTestis\_48hr.sig.500.EntrySwapped | 241 | 1.00E-04 | 5.19 |
| DBT\_25uM\_embryo | 8 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 375 | 1.00E-04 | 5.15 |
| PKC412\_40ugL\_wholebody | 3 | FLU\_1700ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | 336 | 1.00E-04 | 5.07 |
| linuron\_1.3mgL\_embryo | 4 | VIN\_1000ugL\_maleTestis\_24hr.sig.500.EntrySwapped | 257 | 1.00E-04 | 5.03 |
| linuron\_1.3mgL\_embryo | 4 | O2\_1mgL\_Testis\_4dSatJan311850042015.sig.500.EntrySwapped | 16 | 1.00E-04 | 4.99 |
| linuron\_1.3mgL\_embryo | 4 | FLU\_1700ugL\_maleTestis\_24hr.sig.500.EntrySwapped | 320 | 1.00E-04 | 4.85 |
| PKC412\_40ugL\_wholebody | 3 | MUS\_500ugL\_femaleBrain\_48hr.sig.500.EntrySwapped | 112 | 1.00E-04 | 4.84 |

Top five significant hits, if any, across species from DRE to FHM (Agilent 15064 to 19597;target IDs + source LogFC; pvalue cutoff= 1.0 / 132 = 0.0076)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EE2\_30ngL\_femaleOvary\_96hr.sig.500.EntrySwapped | FAD\_50\_Ovary | EE2\_10ngL\_MaleBrain | EE2\_0.1ngL\_MaleBrain\* |  |  |
| EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | EE2\_25ngL\_Liver | RochesterDS\_999\_liver | phenanthrene\_Med\_Liver | RochesterUS\_999\_liver | Streamwater\_999\_Liver |
| EE2\_30ngL\_maleTestis\_48hr.sig.500.EntrySwapped | PFCs\_Mix\_Liver | KTC\_400\_Ovary | PFCs\_High\_Liver | RochesterEFF\_999\_liver |  |
| TRB\_3ugL\_femaleBrain\_96hr.sig.500.EntrySwapped | bifenthrin\_0.3ugL\_larvae | KTC\_150\_Ovary | cypermethrin\_0.2ugL\_larvae | FAD\_50\_Ovary | DES\_1\_Liver |
| TRB\_3ugL\_femaleOvary\_24hr.sig.500.EntrySwapped | TbEE2EE2\_10\_Ovary | BPA\_0.01\_Ovary |  |  |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.500.EntrySwapped |  |  |  |  |  |
| EE2\_30ngL\_maleBrain\_48hr.sig.500.EntrySwapped |  |  |  |  |  |
| EE2\_30ngL\_maleBrain\_96hr.sig.500.EntrySwapped |  |  |  |  |  |

\*pvalue 0.0082

Top 25 connections across species (Agilent 15064 to 19597; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| Bifenthrin\_1.6ugL\_Larvae | 32 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 11.12 |
| EE2\_25ngL\_Liver | 8 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 9.25 |
| RochesterDS\_999\_liver | 6 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 8.18 |
| phenanthrene\_Med\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 8.13 |
| RochesterUS\_999\_liver | 7 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 8.11 |
| Streamwater\_999\_Liver | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 8.11 |
| bifenthrin\_0.15ugL\_larvae | 43 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 7.90 |
| phenanthrene\_High\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 7.88 |
| RochesterEFF\_999\_liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 7.54 |
| PFCs\_High\_Liver | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 7.53 |
| DES\_10\_Liver | 5 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 7.45 |
| PFCs\_Low\_Liver | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 7.29 |
| Wastewater\_999\_Liver | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 6.83 |
| PFCs\_Low\_Liver | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 6.76 |
| EFFHa\_5Perc\_MaleLiver | 10 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 6.64 |
| VZ\_385\_Ovary | 20 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 6.06 |
| PRO\_200\_Ovary | 11 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 5.84 |
| EFFLa\_0.5Perc\_MaleLiver | 3 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 5.76 |
| E2a\_999\_MaleLiver | 4 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 5.55 |
| Terbufos\_57.5ugL\_MaleBrain | 13 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 5.44 |
| EFFLa\_0.5Perc\_MaleLiver | 3 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 5.37 |
| ElyUS\_999\_liver | 6 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 5.28 |
| cypermethrin\_1ugL\_larvae | 9 | EE2\_30ngL\_maleLiver\_48hr.sig.500.EntrySwapped | 227 | 1.00E-04 | 5.28 |
| cypermethrin\_1ugL\_larvae | 9 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 5.19 |
| PFCs\_Mix\_Liver | 4 | tBHQ\_10uM\_embryo\_6h.sig.500.EntrySwapped | 244 | 1.00E-04 | 5.11 |

Top five significant hits, if any, across platform within DRE from Agilent 19161 to 15064 (target IDs + source LogFC; pvalue cutoff= 1.0 / 45 = 0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| E2\_1uM\_embryo\_4dpf.sig.500.EntrySwapped | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | O2\_3mgL\_Testis | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | TRI\_2500ugL\_femaleOvary | KET\_370ugL\_maleLiver | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | KET\_370ugL\_maleLiver | TRI\_2500ugL\_femaleOvary | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | TRB\_3ugL\_femaleLiver | TRI\_2500ugL\_femaleOvary | O2\_1mgL\_Ovary |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | O2\_1mgL\_Testis | O2\_3mgL\_Testis | TCDD\_2nM\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | VIN\_1000ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_femaleOvary | KET\_370ugL\_femaleOvary | KET\_370ugL\_maleBrain |
| Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TCDD\_1ngmL\_embryo | TCDD\_2nM\_embryo | TRI\_2500ugL\_femaleOvary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | DNP\_14.2uM\_embryo | TCDD\_1ngmL\_embryo | DMB\_509uM\_embryo | TCDD\_2nM\_embryo | TRI\_2500ugL\_femaleOvary |
| PRO\_500ugL\_femaleBrain\_48hr.sig.500.EntrySwapped | KET\_370ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_maleTestis | MUS\_500ugL\_maleBrain | FIP\_5ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.500.EntrySwapped | VIN\_1000ugL\_femaleOvary | TRB\_3ugL\_femaleOvary | KET\_370ugL\_maleBrain | FIP\_5ugL\_femaleOvary | KET\_370ugL\_femaleOvary |
| prochloraz\_1.7mgL\_embryo\_48hr.sig.500.EntrySwapped | DMB\_509uM\_embryo | TRB\_3ugL\_femaleBrain | tBHQ\_10uM\_embryo | TCDD\_1ngmL\_embryo | O2\_1mgL\_Testis |
| prochloraz\_2mgL\_embryo\_48hr.sig.500.EntrySwapped | DMB\_509uM\_embryo | tBHQ\_10uM\_embryo | TRB\_3ugL\_femaleBrain | PRO\_500ugL\_femaleBrain | EE2\_30ngL\_maleLiver |

Top 25 connections across platforms of DRE (Agilent 19161 to 15064; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ROGLs** | **size** | **Signatures** | **size** | **P value** | **Abs (set score/STD)** |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | 310 | 1.00E-04 | 26.94 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 269 | 1.00E-04 | 26.21 |
| EE2\_30ngL\_maleLiver | 6 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.500.EntrySwapped | 283 | 1.00E-04 | 18.74 |
| DNP\_14.2uM\_embryo | 8 | Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 308 | 1.00E-04 | 11.98 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 269 | 1.00E-04 | 11.62 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.500.EntrySwapped | 283 | 1.00E-04 | 11.55 |
| KET\_370ugL\_maleLiver | 5 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 269 | 1.00E-04 | 11.22 |
| DNP\_14.2uM\_embryo | 8 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 197 | 1.00E-04 | 10.17 |
| tBHQ\_10uM\_embryo | 4 | RDX\_15mgL\_fry\_96hr.sig.500.EntrySwapped | 246 | 1.00E-04 | 9.24 |
| KET\_370ugL\_maleLiver | 5 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | 310 | 1.00E-04 | 8.96 |
| TCDD\_1ngmL\_embryo | 19 | PKC412\_2ugL\_wholebody\_6dpf.sig.500.EntrySwapped | 282 | 1.00E-04 | 8.72 |
| tBHQ\_10uM\_embryo | 4 | RDX\_3.8mgL\_fry\_96hr.sig.500.EntrySwapped | 266 | 1.00E-04 | 8.61 |
| DMB\_509uM\_embryo | 8 | Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 308 | 1.00E-04 | 8.55 |
| DNP\_14.2uM\_embryo | 8 | Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 305 | 1.00E-04 | 8.37 |
| TCDD\_2nM\_embryo | 4 | RDX\_15mgL\_fry\_96hr.sig.500.EntrySwapped | 246 | 1.00E-04 | 8.02 |
| TRB\_3ugL\_femaleLiver | 5 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | 310 | 1.00E-04 | 7.89 |
| DMB\_509uM\_embryo | 8 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 197 | 1.00E-04 | 7.80 |
| DNP\_14.2uM\_embryo | 8 | methylparaben\_19.8mgL\_embryo\_48hr.sig.500.EntrySwapped | 210 | 1.00E-04 | 7.79 |
| tBHQ\_10uM\_embryo | 4 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 197 | 1.00E-04 | 7.58 |
| TCDD\_1ngmL\_embryo | 19 | Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 305 | 1.00E-04 | 7.38 |
| EE2\_30ngL\_maleLiver | 6 | methylparaben\_19.8mgL\_embryo\_48hr.sig.500.EntrySwapped | 210 | 1.00E-04 | 7.29 |
| DNP\_14.2uM\_embryo | 8 | methylparaben\_24.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 240 | 1.00E-04 | 7.29 |
| EE2\_30ngL\_maleTestis | 9 | E2\_1uM\_embryo\_4dpf.sig.500.EntrySwapped | 12 | 1.00E-04 | 7.28 |
| TCDD\_2nM\_embryo | 4 | RDX\_7.5mgL\_fry\_96hr.sig.500.EntrySwapped | 267 | 1.00E-04 | 7.23 |
| DMB\_509uM\_embryo | 8 | prochloraz\_1.7mgL\_embryo\_48hr.sig.500.EntrySwapped | 35 | 1.00E-04 | 7.05 |

Top five significant hits, if any, across species from DRE to FHM (Agilent 19161 to 19597; target IDs + source LogFC; pvalue cutoff= 1.0 / 132 = 0.0076)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| E2\_1uM\_embryo\_4dpf.sig.500.EntrySwapped | dihydrotestosterone\_1uM\_Ovary | TB\_500\_Ovary | PRO\_300\_Ovary | TbBPATbBPA\_100\_Ovary | PFCs\_High\_Blood |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.500.EntrySwapped | phenanthrene\_High\_Liver | E2b\_X\_MaleLiver | ElyEFF\_999\_liver | E2a\_999\_MaleLiver | phenanthrene\_Med\_Liver |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | EE2\_25ngL\_Liver | phenanthrene\_High\_Liver | E2b\_X\_MaleLiver | E2a\_999\_MaleLiver | DES\_1\_Liver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | RochesterDS\_999\_liver | E2a\_999\_MaleLiver | DES\_10\_Liver | RochesterEFF\_999\_liver | EE2\_25ngL\_Liver |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.500.EntrySwapped | ElyEFF\_999\_liver | ElyDS\_999\_liver | phenanthrene\_Med\_Liver | E2b\_X\_MaleLiver | DES\_10\_Liver |
| Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | PFCs\_Low\_Blood | Bifenthrin\_1.6ugL\_Larvae | FAD\_5\_Ovary | TbBPATbBPA\_100\_Ovary | TRI\_300\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.500.EntrySwapped | PFCs\_Low\_Blood | KTC\_999\_Ovary | Bifenthrin\_1.6ugL\_Larvae | E2b\_X\_MaleLiver | permethrin\_3.13ugL\_larvae |
| RDX\_15mgL\_fry\_96hr.sig.500.EntrySwapped | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | esfenvalerate\_1ugL\_larvae | ElyUS\_999\_liver | PFCs\_Low\_Liver |
| RDX\_3.8mgL\_fry\_96hr.sig.500.EntrySwapped | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | PFCs\_Low\_Liver | ElyEFF\_999\_liver | phenanthrene\_High\_Liver |
| RDX\_7.5mgL\_fry\_96hr.sig.500.EntrySwapped | Bifenthrin\_1.6ugL\_Larvae | bifenthrin\_0.15ugL\_larvae | esfenvalerate\_1ugL\_larvae | ElyUS\_999\_liver | phenanthrene\_High\_Liver |

Top 25 connections across species (Agilent 19161 to 19597; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Bifenthrin\_1.6ugL\_Larvae | 32 | RDX\_15mgL\_fry\_96hr.sig.500.EntrySwapped | 214 | 1.00E-04 | 12.81 |
| bifenthrin\_0.15ugL\_larvae | 43 | RDX\_15mgL\_fry\_96hr.sig.500.EntrySwapped | 214 | 1.00E-04 | 12.48 |
| EE2\_25ngL\_Liver | 8 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 247 | 1.00E-04 | 10.33 |
| Bifenthrin\_1.6ugL\_Larvae | 32 | RDX\_7.5mgL\_fry\_96hr.sig.500.EntrySwapped | 234 | 1.00E-04 | 9.91 |
| Bifenthrin\_1.6ugL\_Larvae | 32 | RDX\_3.8mgL\_fry\_96hr.sig.500.EntrySwapped | 222 | 1.00E-04 | 9.27 |
| bifenthrin\_0.15ugL\_larvae | 43 | RDX\_7.5mgL\_fry\_96hr.sig.500.EntrySwapped | 234 | 1.00E-04 | 9.27 |
| phenanthrene\_High\_Liver | 5 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 247 | 1.00E-04 | 9.11 |
| KTCTNTKTC\_0.5\_Ovary | 24 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 191 | 1.00E-04 | 8.73 |
| phenanthrene\_High\_Liver | 5 | Estradiol\_5ugL\_maleLiver\_12hrs.sig.500.EntrySwapped | 260 | 1.00E-04 | 8.63 |
| bifenthrin\_0.15ugL\_larvae | 43 | RDX\_3.8mgL\_fry\_96hr.sig.500.EntrySwapped | 222 | 1.00E-04 | 8.61 |
| phenanthrene\_Low\_Liver | 19 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 191 | 1.00E-04 | 7.97 |
| FAD\_30\_Ovary | 59 | methylparaben\_19.8mgL\_embryo\_48hr.sig.500.EntrySwapped | 195 | 1.00E-04 | 7.90 |
| FAD\_5\_Ovary | 20 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 187 | 1.00E-04 | 7.70 |
| KTCTNTKTC\_0.5\_Ovary | 24 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 187 | 1.00E-04 | 7.68 |
| KTCTNTTNT\_4.4\_Ovary | 23 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 187 | 1.00E-04 | 7.67 |
| KTC\_150\_Ovary | 12 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 187 | 1.00E-04 | 7.59 |
| E2b\_X\_MaleLiver | 6 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 247 | 1.00E-04 | 7.58 |
| E2a\_999\_MaleLiver | 4 | Estradiol\_5ugL\_maleLiver\_24hrs.sig.500.EntrySwapped | 247 | 1.00E-04 | 7.57 |
| FAD\_3\_Ovary | 63 | methylparaben\_24.4mgL\_embryo\_48hr.sig.500.EntrySwapped | 216 | 1.00E-04 | 7.48 |
| FAD\_3\_Ovary | 63 | methylparaben\_19.8mgL\_embryo\_48hr.sig.500.EntrySwapped | 195 | 1.00E-04 | 7.46 |
| KTCTNTTNT\_4.4\_Ovary | 23 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 191 | 1.00E-04 | 7.37 |
| TbEE2EE2\_1\_Ovary | 4 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 187 | 1.00E-04 | 7.21 |
| RochesterDS\_999\_liver | 6 | Estradiol\_5ugL\_maleLiver\_48hrs.sig.500.EntrySwapped | 274 | 1.00E-04 | 7.21 |
| FAD\_50\_Ovary | 64 | methylparaben\_19.8mgL\_embryo\_48hr.sig.500.EntrySwapped | 195 | 1.00E-04 | 7.14 |
| KTC\_999\_Ovary | 40 | linuron\_1.3mgL\_embryo\_48hr.sig.500.EntrySwapped | 191 | 1.00E-04 | 7.12 |

Top five significant hits, if any, across species from FHM to DRE (Agilent 19597 to 15064; target IDs + source LogFC; pvalue cutoff= 1 / 45 = 0.022)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DES\_100\_Liver\_96h.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TCDD\_1ngmL\_embryo | APM\_5.83uM\_embryo |
| DES\_100\_Liver\_96h.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | FLU\_1700ugL\_maleTestis | TRI\_2500ugL\_femaleOvary | DNP\_14.2uM\_embryo |
| DES\_1\_Liver\_96h.sig.500.EntrySwapped | TRI\_2500ugL\_femaleOvary | EE2\_30ngL\_maleLiver | MUS\_500ugL\_femaleOvary |  |  |
| E2a\_999\_MaleLiver\_14d.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | KET\_370ugL\_femaleLiver | DNP\_14.2uM\_embryo | KET\_370ugL\_maleLiver | TRI\_2500ugL\_femaleOvary |
| E2b\_X\_MaleLiver\_14d.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | O2\_3mgL\_Testis | TCDD\_2nM\_embryo | TRI\_2500ugL\_femaleOvary |
| EE2\_25ngL\_Liver\_72h.sig.500.EntrySwapped | EE2\_30ngL\_maleLiver | KET\_370ugL\_maleLiver | KET\_370ugL\_femaleLiver | TRB\_3ugL\_femaleLiver | FLU\_1700ugL\_maleTestis |
| TB\_30\_Ovary\_192h.sig.500.EntrySwapped | FIP\_5ugL\_femaleOvary |  |  |  |  |
| TB\_30\_Ovary\_96hp.sig.500.EntrySwapped | KET\_370ugL\_femaleLiver |  |  |  |  |
| TB\_500\_Ovary\_48h.sig.500.EntrySwapped | APM\_5.83uM\_embryo |  |  |  |  |
| TB\_30\_Ovary\_24h.sig.500.EntrySwapped |  |  |  |  |  |
| TB\_30\_Ovary\_96h.sig.500.EntrySwapped |  |  |  |  |  |
| TB\_500\_Ovary\_96hp.sig.500.EntrySwapped |  |  |  |  |  |

Top 25 connections across species (Agilent 19597 to 15064; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EE2\_30ngL\_maleLiver | 6 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 271 | 1.00E-04 | 21.70 |
| EE2\_30ngL\_maleLiver | 6 | EE2\_25ngL\_Liver\_72h.sig.500.EntrySwapped | 265 | 1.00E-04 | 18.16 |
| tBHQ\_10uM\_embryo | 4 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 258 | 1.00E-04 | 12.22 |
| EE2\_30ngL\_maleLiver | 6 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 272 | 1.00E-04 | 11.83 |
| tBHQ\_10uM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 232 | 1.00E-04 | 10.00 |
| DNP\_14.2uM\_embryo | 8 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 272 | 1.00E-04 | 9.50 |
| EE2\_30ngL\_maleLiver | 6 | ElyEFF\_999\_liver\_4d.sig.500.EntrySwapped | 96 | 1.00E-04 | 8.35 |
| tBHQ\_10uM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 245 | 1.00E-04 | 8.10 |
| KET\_370ugL\_maleLiver | 5 | EE2\_25ngL\_Liver\_72h.sig.500.EntrySwapped | 265 | 1.00E-04 | 8.09 |
| tBHQ\_10uM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 236 | 1.00E-04 | 7.80 |
| EE2\_30ngL\_maleLiver | 6 | E2b\_X\_MaleLiver\_14d.sig.500.EntrySwapped | 237 | 1.00E-04 | 7.73 |
| TCDD\_2nM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 188 | 1.00E-04 | 7.60 |
| KET\_370ugL\_maleLiver | 5 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 271 | 1.00E-04 | 7.44 |
| TCDD\_2nM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 232 | 1.00E-04 | 6.66 |
| DMB\_509uM\_embryo | 8 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 272 | 1.00E-04 | 6.53 |
| DNP\_14.2uM\_embryo | 8 | GEM\_15\_Ovary\_8d.sig.500.EntrySwapped | 238 | 1.00E-04 | 6.29 |
| EE2\_30ngL\_maleLiver | 6 | E2a\_999\_MaleLiver\_14d.sig.500.EntrySwapped | 108 | 1.00E-04 | 5.60 |
| tBHQ\_10uM\_embryo | 4 | ElyUS\_999\_liver\_4d.sig.500.EntrySwapped | 89 | 1.00E-04 | 5.54 |
| FAD\_25ugL\_femaleBrain | 10 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 188 | 1.00E-04 | 5.52 |
| FLU\_1700ugL\_maleTestis | 15 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 271 | 1.00E-04 | 5.48 |
| EE2\_30ngL\_maleLiver | 6 | ElyUS\_999\_liver\_4d.sig.500.EntrySwapped | 89 | 1.00E-04 | 5.44 |
| DMB\_509uM\_embryo | 8 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 245 | 1.00E-04 | 5.41 |
| O2\_3mgL\_Ovary | 9 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 258 | 1.00E-04 | 5.25 |
| TCDD\_1ngmL\_embryo | 19 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 272 | 1.00E-04 | 5.18 |
| TCDD\_2nM\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 236 | 1.00E-04 | 5.15 |

Top five significant hits, if any, across species from FHM to DRE (Agilent 19597 to 19161; target IDs + source LogFC; pvalue cutoff= 1 / 39 = 0.026)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DES\_100\_Liver\_96h.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | RDX\_0.9mgL\_fry | bisphenol\_8.5mgL\_embryo | RDX\_3.8mgL\_fry |
| DES\_100\_Liver\_96h.sig.500.EntrySwapped | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | Estradiol\_5ugL\_maleLiver |
| DES\_1\_Liver\_96h.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver |  |  |  |  |
| E2a\_999\_MaleLiver\_14d.sig.500.EntrySwapped | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | BPA\_0.1ugL\_ovary | linuron\_1.3mgL\_embryo | RDX\_15mgL\_fry |
| E2b\_X\_MaleLiver\_14d.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | Genistein\_2.2mgL\_embryo | bisphenol\_8mgL\_embryo |
| EE2\_25ngL\_Liver\_72h.sig.500.EntrySwapped | Estradiol\_5ugL\_maleLiver | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | BDE\_12500ngG\_embryo |

\*p-value 0.036

Top 25 connections across species (Agilent 19597 to 19161; target ID + source LogFC).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 358 | 1.00E-04 | 19.60 |
| RDX\_15mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 321 | 1.00E-04 | 14.65 |
| Estradiol\_5ugL\_maleLiver | 12 | EE2\_25ngL\_Liver\_72h.sig.500.EntrySwapped | 338 | 1.00E-04 | 14.14 |
| RDX\_15mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 330 | 1.00E-04 | 13.96 |
| RDX\_15mgL\_fry | 4 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 341 | 1.00E-04 | 13.49 |
| PKC412\_40ugL\_wholebody | 3 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 363 | 1.00E-04 | 11.95 |
| RDX\_3.8mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 321 | 1.00E-04 | 11.80 |
| RDX\_7.5mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 321 | 1.00E-04 | 11.70 |
| linuron\_1.3mgL\_embryo | 4 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 363 | 1.00E-04 | 11.54 |
| RDX\_15mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 327 | 1.00E-04 | 11.45 |
| PKC412\_40ugL\_wholebody | 3 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 358 | 1.00E-04 | 11.03 |
| linuron\_1.2mgL\_embryo | 4 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 363 | 1.00E-04 | 10.80 |
| RDX\_3.8mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 330 | 1.00E-04 | 10.55 |
| RDX\_3.8mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 327 | 1.00E-04 | 10.38 |
| RDX\_3.8mgL\_fry | 4 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 341 | 1.00E-04 | 10.36 |
| RDX\_7.5mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 330 | 1.00E-04 | 9.96 |
| RDX\_7.5mgL\_fry | 4 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 341 | 1.00E-04 | 9.75 |
| Estradiol\_5ugL\_maleLiver | 12 | Bifenthrin\_1.6ugL\_Larvae\_48h.sig.500.EntrySwapped | 341 | 1.00E-04 | 9.47 |
| bisphenol\_8.5mgL\_embryo | 4 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 363 | 1.00E-04 | 9.45 |
| RDX\_7.5mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 327 | 1.00E-04 | 8.76 |
| Estradiol\_5ugL\_maleLiver | 12 | E2b\_X\_MaleLiver\_14d.sig.500.EntrySwapped | 318 | 1.00E-04 | 8.70 |
| RDX\_15mgL\_fry | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 278 | 1.00E-04 | 8.69 |
| linuron\_1.3mgL\_embryo | 4 | bifenthrin\_0.15ugL\_larvae\_48hr.sig.500.EntrySwapped | 327 | 1.00E-04 | 8.35 |
| Estradiol\_5ugL\_maleLiver | 12 | DES\_100\_Liver\_96h.sig.500.EntrySwapped | 363 | 1.00E-04 | 8.32 |
| Estradiol\_5ugL\_maleLiver | 12 | ElyEFF\_999\_liver\_4d.sig.500.EntrySwapped | 130 | 1.00E-04 | 8.14 |

The ratio and percentage of informative connections out of total number of queries. All cross-platform/species queries are based on target IDs + source LogFC.

|  |  |  |  |
| --- | --- | --- | --- |
| **Microarray platforms** | **Agilent 15064 (DRE)** | **Agilent 19161 (DRE)** | **Agilent 19597 (FHM)** |
| **Agilent 15064** | 35/36 (97%) | 11/13 (85%) | 4/8 (50%) |
| **Agilent 19161** | 6/12 (50%) | 36/36 (100%) | 5/10 (50%) |
| **Agilent 19597** | 6/12 (50%) | 5/6 (83%) | 38/46 (83%) |

\*an informative connection is defined as a pair of signature-ROGL sharing the same or similar class of chemicals present among the top five hits in a query, as ranked by an adjusted connectivity score with a significant p-value. In the case of cross platform/species queries, only those made by signatures cross-mapped between the same or similar class of chemicals are considered.

Table 5. Number of significant and unique connections/conditions across queries

|  |  |  |  |
| --- | --- | --- | --- |
| Microarray platforms | Agilent 15064 (DRE) | Agilent 19161 (DRE) | Agilent 19597 (FHM) |
| Agilent 15064 | 117/17 | 106/26 | 208/64 |
| Agilent 19161 | 138/27 | 110/16 | 382/65 |
| Agilent 19597 | 94/30 | 108/31 | 553/60 |

**Next few slides show the results of cross-platform/species Cmap when signatures use only mapped probe IDs (logFC set to 1 for all probes). Results are very poor.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | E2\_1uM\_embryo | BPA\_10ugL\_ovary | flutamide\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19161.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | PKC412\_2ugL\_wholebody | bisphenol\_8.5mgL\_embryo |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19161.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | BDE\_12500ngG\_embryo |
| EE2\_30ngL\_maleBrain\_96hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | BPA\_0.01ugL\_ovary | BPA\_10ugL\_ovary | EE2\_0.65mgL\_embryo |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19161.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | Estradiol\_5ugL\_maleLiver |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.sig | BPA\_10ugL\_ovary | linuron\_1.3mgL\_embryo | PKC412\_40ugL\_wholebody | linuron\_1.2mgL\_embryo | flutamide\_1.2mgL\_embryo |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19161.sig | E2\_1uM\_embryo | linuron\_1.2mgL\_embryo | Genistein\_2.2mgL\_embryo | PRO\_500ugL\_femaleBrain | BPA\_10ugL\_ovary |
| EE2\_30ngL\_maleTestis\_96hr.sig.15064TO19161.sig | linuron\_1.2mgL\_embryo | bisphenol\_8mgL\_embryo | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | PYR\_25uM\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | flutamide\_1.2mgL\_embryo | RDX\_0.9mgL\_fry | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| FLU\_1700ugL\_maleTestis\_24hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary | linuron\_1.3mgL\_embryo | flutamide\_1.2mgL\_embryo |
| FLU\_1700ugL\_maleTestis\_48hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo | linuron\_1.2mgL\_embryo |
| PRO\_500ugL\_femaleBrain\_48hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | flutamide\_1.2mgL\_embryo | RDX\_0.9mgL\_fry | BPA\_10ugL\_ovary | E2\_1uM\_embryo |
| PRO\_500ugL\_femaleOvary\_48hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | flutamide\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| PRO\_500ugL\_maleTestis\_48hr.sig.15064TO19161.sig | PKC412\_40ugL\_wholebody | bisphenol\_8.5mgL\_embryo | flutamide\_1.2mgL\_embryo | BPA\_10ugL\_ovary | RDX\_0.9mgL\_fry |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| E2\_1uM\_embryo\_4dpf.sig.19161TO15064.sig | O2\_1mgL\_Ovary | TRI\_2500ugL\_femaleOvary | EE2\_30ngL\_maleTestis | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver |
| EE2\_0.65mgL\_embryo\_48hr.sig.19161TO15064.sig | DMB\_509uM\_embryo | TRB\_3ugL\_femaleBrain | APM\_5.83uM\_embryo | MUS\_500ugL\_femaleOvary | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO15064.sig | DNP\_14.2uM\_embryo | O2\_1mgL\_Ovary | APM\_5.83uM\_embryo | TRI\_2500ugL\_femaleOvary | DMB\_509uM\_embryo |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO15064.sig | O2\_1mgL\_Ovary | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TRI\_2500ugL\_femaleOvary | TRB\_3ugL\_femaleLiver |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO15064.sig | O2\_1mgL\_Ovary | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TRI\_2500ugL\_femaleOvary | TCDD\_2nM\_embryo |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO15064.sig | EE2\_30ngL\_maleLiver | TRB\_3ugL\_femaleLiver | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | TCDD\_2nM\_embryo |
| FLU\_1700ugL\_femaleOvary\_48hr.sig.19161TO15064.sig | EE2\_30ngL\_maleLiver | MUS\_500ugL\_femaleOvary | VIN\_1000ugL\_femaleOvary | KET\_370ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | O2\_3mgL\_Ovary | O2\_1mgL\_Ovary |
| PRO\_500ugL\_femaleBrain\_48hr.sig.19161TO15064.sig | MUS\_500ugL\_maleBrain | VIN\_1000ugL\_femaleOvary | MUS\_500ugL\_femaleOvary | FIP\_5ugL\_femaleOvary | TRB\_3ugL\_femaleOvary |
| PRO\_500ugL\_femaleOvary\_48hr.sig.19161TO15064.sig | MUS\_500ugL\_femaleOvary | EE2\_30ngL\_maleLiver | VIN\_1000ugL\_femaleOvary | TRB\_3ugL\_femaleOvary | FIP\_5ugL\_femaleOvary |
| prochloraz\_1.7mgL\_embryo\_48hr.sig.19161TO15064.sig | DMB\_509uM\_embryo | tBHQ\_10uM\_embryo | TRB\_3ugL\_femaleBrain | TCDD\_1ngmL\_embryo | O2\_1mgL\_Ovary |
| prochloraz\_2mgL\_embryo\_48hr.sig.19161TO15064.sig | tBHQ\_10uM\_embryo | DMB\_509uM\_embryo | TCDD\_1ngmL\_embryo | TRB\_3ugL\_femaleBrain | O2\_3mgL\_Ovary |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EE2\_30ngL\_femaleOvary\_96hr.sig.15064TO19597.sig | FAD\_5\_Ovary | cypermethrin\_1ugL\_brain | KTC\_150\_Ovary | TbEE2EE2\_1\_Ovary | EE2\_10ngL\_MaleBrain |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19597.sig | RDX\_0.83mgL\_Liver | TbBPATbBPA\_100\_Ovary | DES\_1\_Liver | VZ\_200\_Ovary | EFFHb\_5Perc\_MaleLiver |
| EE2\_30ngL\_maleBrain\_48hr.sig.15064TO19597.sig | TbBPATbBPA\_100\_Ovary | FAD\_5\_Ovary | cypermethrin\_1ugL\_brain | VZ\_700\_Ovary | VZ\_200\_Ovary |
| EE2\_30ngL\_maleBrain\_96hr.sig.15064TO19597.sig | TbBPATbBPA\_100\_Ovary | TbBPATB\_500\_Ovary | KTCTNTTNT\_4.4\_Ovary | FAD\_5\_Ovary | TbBPATbBPA\_10\_Ovary |
| EE2\_30ngL\_maleLiver\_48hr.sig.15064TO19597.sig | DES\_10\_Liver | FAD\_5\_Ovary | TbTCCTBTCC\_5\_Ovary | GEM\_15\_Ovary | GEM\_600\_Ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19597.sig | FLU\_500\_Ovary | FLU\_50\_Ovary | WLSSD\_50perc\_Ovary | PRO\_300\_Ovary | TbTCCTBTCC\_5\_Ovary |
| EE2\_30ngL\_maleTestis\_48hr.sig.15064TO19597.sig | TbBPATbBPA\_100\_Ovary | VZ\_700\_Ovary | FAD\_30\_Ovary | cypermethrin\_1ugL\_brain | VZ\_200\_Ovary |
| EE2\_30ngL\_maleTestis\_96hr.sig.15064TO19597.sig | cypermethrin\_0.25ugL\_brain | KTCTNTTNT\_4.4\_Ovary | cypermethrin\_1ugL\_brain | KTCTNTKTC\_0.5\_Ovary | Mixture\_7.5P57.5TugL\_MaleBrain |
| TRB\_3ugL\_femaleBrain\_96hr.sig.15064TO19597.sig | flutamide\_0.1uM\_Ovary | cypermethrin\_1ugL\_brain | RDX\_7.5mgL\_fry | PRO\_300\_Ovary | KTC\_999\_Ovary |
| TRB\_3ugL\_femaleOvary\_24hr.sig.15064TO19597.sig | RDX\_7.5mgL\_fry | KTCTNTTNT\_4.4\_Ovary | flutamide\_0.1uM\_Ovary | KTC\_150\_Ovary | EE2\_10ngL\_MaleBrain |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| DES\_100\_Liver\_96h.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | EE2\_30ngL\_maleLiver | APM\_5.83uM\_embryo | FLU\_1700ugL\_maleTestis | DMB\_509uM\_embryo |
| DES\_100\_Liver\_96h.sig.19597TO15064.sig | EE2\_30ngL\_maleLiver | DNP\_14.2uM\_embryo | FAD\_25ugL\_femaleBrain | APM\_5.83uM\_embryo | tBHQ\_10uM\_embryo |
| DES\_1\_Liver\_96h.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | HAL\_50ugL\_ovary | APM\_5.83uM\_embryo | TCDD\_2nM\_embryo |
| E2a\_999\_MaleLiver\_14d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | APM\_5.83uM\_embryo | DMB\_509uM\_embryo | EE2\_30ngL\_maleLiver | VIN\_1000ugL\_femaleOvary |
| E2b\_X\_MaleLiver\_14d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | EE2\_30ngL\_maleLiver | TCDD\_2nM\_embryo |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO15064.sig | DNP\_14.2uM\_embryo | EE2\_30ngL\_maleLiver | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | TRB\_3ugL\_femaleLiver |
| EFFHa\_5Perc\_MaleLiver\_14d.sig.19597TO15064.sig | EE2\_30ngL\_maleLiver | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_1mgL\_Ovary | KET\_370ugL\_maleLiver |
| EFFHb\_5Perc\_MaleLiver\_14d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | KET\_370ugL\_femaleOvary | TRI\_2500ugL\_femaleOvary |
| ElyDS\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_1mgL\_Ovary | O2\_1mgL\_Testis | APM\_5.83uM\_embryo |
| ElyEFF\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | EE2\_30ngL\_maleLiver | TCDD\_2nM\_embryo | APM\_5.83uM\_embryo |
| ElyUS\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | EE2\_30ngL\_maleTestis | TRI\_2500ugL\_maleTestis |
| HutchinsonDS\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_1mgL\_Ovary | TCDD\_1ngmL\_embryo | APM\_5.83uM\_embryo |
| HutchinsonEFF\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_3mgL\_Ovary | O2\_1mgL\_Testis | APM\_5.83uM\_embryo |
| RochesterDS\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | APM\_5.83uM\_embryo | O2\_1mgL\_Ovary | TCDD\_1ngmL\_embryo |
| RochesterEFF\_999\_liver\_4d.sig.19597TO15064.sig | VIN\_1000ugL\_maleTestis | DMB\_509uM\_embryo | FLU\_1700ugL\_maleTestis | DNP\_14.2uM\_embryo | TRI\_500ugL\_maleTestisLowDose |
| RochesterUS\_999\_liver\_4d.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | O2\_1mgL\_Ovary | DMB\_509uM\_embryo | O2\_3mgL\_Ovary | APM\_5.83uM\_embryo |
| TB\_30\_Ovary\_192h.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_3mgL\_Ovary | KET\_370ugL\_maleTestis | EE2\_30ngL\_maleLiver |
| TB\_30\_Ovary\_24h.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | O2\_3mgL\_Ovary | MUS\_500ugL\_maleBrain | APM\_5.83uM\_embryo |
| TB\_30\_Ovary\_96h.sig.19597TO15064.sig | APM\_5.83uM\_embryo | DNP\_14.2uM\_embryo | DMB\_509uM\_embryo | KET\_370ugL\_femaleBrain | KET\_370ugL\_maleTestis |
| TB\_30\_Ovary\_96hp.sig.19597TO15064.sig | EE2\_30ngL\_maleLiver | O2\_3mgL\_Ovary | KET\_370ugL\_maleLiver | DNP\_14.2uM\_embryo | APM\_5.83uM\_embryo |
| TB\_500\_Ovary\_192h.sig.19597TO15064.sig | KET\_370ugL\_femaleLiver | FIP\_5ugL\_maleBrain | KET\_370ugL\_femaleBrain | tBHQ\_10uM\_embryo | TCDD\_2nM\_embryo |
| TB\_500\_Ovary\_24h.sig.19597TO15064.sig | O2\_3mgL\_Ovary | HAL\_50ugL\_ovary | TRB\_3ugL\_femaleLiver | O2\_1mgL\_Ovary | EE2\_30ngL\_maleTestis |
| TB\_500\_Ovary\_48h.sig.19597TO15064.sig | DNP\_14.2uM\_embryo | MUS\_500ugL\_femaleOvary | TRB\_3ugL\_femaleOvary | FIP\_5ugL\_femaleBrain | VIN\_1000ugL\_femaleOvary |
| TB\_500\_Ovary\_96hp.sig.19597TO15064.sig | O2\_1mgL\_Ovary | EE2\_30ngL\_maleTestis | DMB\_509uM\_embryo | TCDD\_1ngmL\_embryo | O2\_3mgL\_Ovary |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| E2\_1uM\_embryo\_4dpf.sig.19161TO19597.sig | FAD\_3\_Ovary | TbBPATbBPA\_100\_Ovary | FAD\_30\_Ovary | WLSSD\_50perc\_Ovary | PRO\_300\_Ovary |
| EE2\_0.65mgL\_embryo\_48hr.sig.19161TO19597.sig | Bifenthrin\_1.6ugL\_Larvae | PFCs\_Mix\_Liver | PFCs\_High\_Liver | EFFHb\_5Perc\_MaleLiver | Terbufos\_57.5ugL\_MaleBrain |
| Estradiol\_5ugL\_maleLiver\_12hrs.sig.19161TO19597.sig | FAD\_5\_Ovary | bifenthrin\_0.3ugL\_larvae | KTCTNTTNT\_4.4\_Ovary | VZ\_200\_Ovary | GEM\_15\_Ovary |
| Estradiol\_5ugL\_maleLiver\_24hrs.sig.19161TO19597.sig | FAD\_3\_Ovary | FAD\_30\_Ovary | BPA\_10\_Ovary | KTC\_999\_Ovary | FAD\_5\_Ovary |
| Estradiol\_5ugL\_maleLiver\_48hrs.sig.19161TO19597.sig | FAD\_5\_Ovary | TbTCCTBTCC\_5\_Ovary | dihydrotestosterone\_1uM\_Ovary | KTC\_400\_Ovary | FAD\_30\_Ovary |
| Estradiol\_5ugL\_maleLiver\_4hrs.sig.19161TO19597.sig | FAD\_5\_Ovary | GEM\_15\_Ovary | RochesterEFF\_999\_liver | GEM\_600\_Ovary | KTCTNTTNT\_4.4\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.sig | KTCTNTKTC\_0.5\_Ovary | KTC\_400\_Ovary | KTCTNTTNT\_4.4\_Ovary | KTC\_999\_Ovary | FAD\_30\_Ovary |
| Genistein\_2.4mgL\_embryo\_48hr.sig.19161TO19597.sig | KTCTNTKTC\_0.5\_Ovary | KTC\_400\_Ovary | KTC\_999\_Ovary | KTCTNTTNT\_4.4\_Ovary | VZ\_200\_Ovary |
| RDX\_15mgL\_fry\_96hr.sig.19161TO19597.sig | TbBPATbBPA\_100\_Ovary | FAD\_5\_Ovary | FAD\_30\_Ovary | FAD\_50\_Ovary | FAD\_3\_Ovary |
| RDX\_3.8mgL\_fry\_96hr.sig.19161TO19597.sig | KTC\_400\_Ovary | KTCTNTKTC\_0.5\_Ovary | KTC\_999\_Ovary | FAD\_50\_Ovary | FAD\_5\_Ovary |
| RDX\_7.5mgL\_fry\_96hr.sig.19161TO19597.sig | FAD\_5\_Ovary | cypermethrin\_1ugL\_brain | GEM\_15\_Ovary | KTC\_400\_Ovary | TbTCCTBTCC\_5\_Ovary |

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| DES\_100\_Liver\_96h.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | Estradiol\_5ugL\_maleLiver | bisphenol\_8.5mgL\_embryo | linuron\_1.3mgL\_embryo | BPA\_10ugL\_ovary |
| DES\_100\_Liver\_96h.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | PKC412\_2ugL\_wholebody |
| DES\_1\_Liver\_96h.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | PKC412\_2ugL\_wholebody | bisphenol\_8.5mgL\_embryo | RDX\_0.9mgL\_fry |
| E2a\_999\_MaleLiver\_14d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo |
| E2b\_X\_MaleLiver\_14d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| EE2\_25ngL\_Liver\_72h.sig.subset100.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo | linuron\_1.2mgL\_embryo |
| EFFHa\_5Perc\_MaleLiver\_14d.sig.19597TO19161.sig | linuron\_1.2mgL\_embryo | linuron\_1.3mgL\_embryo | bisphenol\_8.5mgL\_embryo | Estradiol\_5ugL\_maleLiver | PKC412\_2ugL\_wholebody |
| EFFHb\_5Perc\_MaleLiver\_14d.sig.19597TO19161.sig | linuron\_1.3mgL\_embryo | BPA\_10ugL\_ovary | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | PKC412\_2ugL\_wholebody |
| ElyDS\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | BPA\_10ugL\_ovary | PKC412\_2ugL\_wholebody |
| ElyEFF\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo |
| ElyUS\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| HutchinsonDS\_999\_liver\_4d.sig.19597TO19161.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | RDX\_1.9mgL\_fry |
| HutchinsonEFF\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| RochesterDS\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | bisphenol\_8.5mgL\_embryo | BPA\_10ugL\_ovary |
| RochesterEFF\_999\_liver\_4d.sig.19597TO19161.sig | PKC412\_40ugL\_wholebody | linuron\_1.3mgL\_embryo | BPA\_10ugL\_ovary | bisphenol\_8.5mgL\_embryo | linuron\_1.2mgL\_embryo |
| RochesterUS\_999\_liver\_4d.sig.19597TO19161.sig | linuron\_1.3mgL\_embryo | linuron\_1.2mgL\_embryo | PKC412\_40ugL\_wholebody | BPA\_10ugL\_ovary | PKC412\_2ugL\_wholebody |
| Wastewater\_999\_Liver\_48h.sig.19597TO19161.sig | diazepam\_273ngL\_brain | Genistein\_2.4mgL\_embryo | bisphenol\_8.5mgL\_embryo | Estradiol\_5ugL\_maleLiver | E2\_1uM\_embryo |