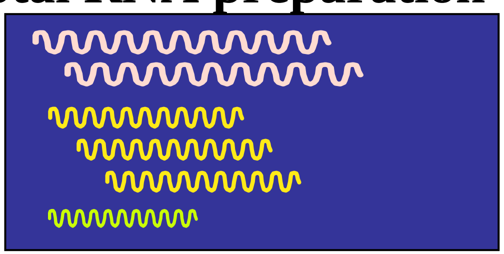
Expression Analysis Data Flow

Two-Month-Old Mice Ovariectomy

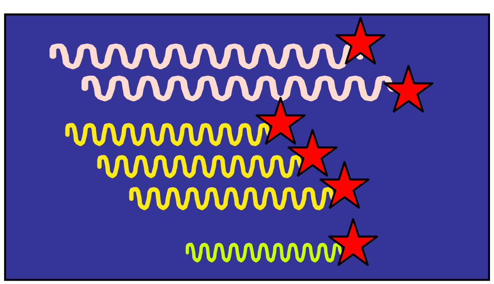
E2/ED injection

Uterus 6hr

Total RNA preparation

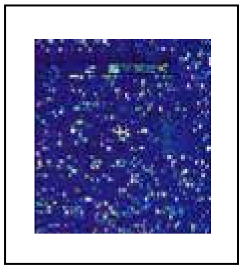


Labeled cRNA synthesis



Hybridization

Scan



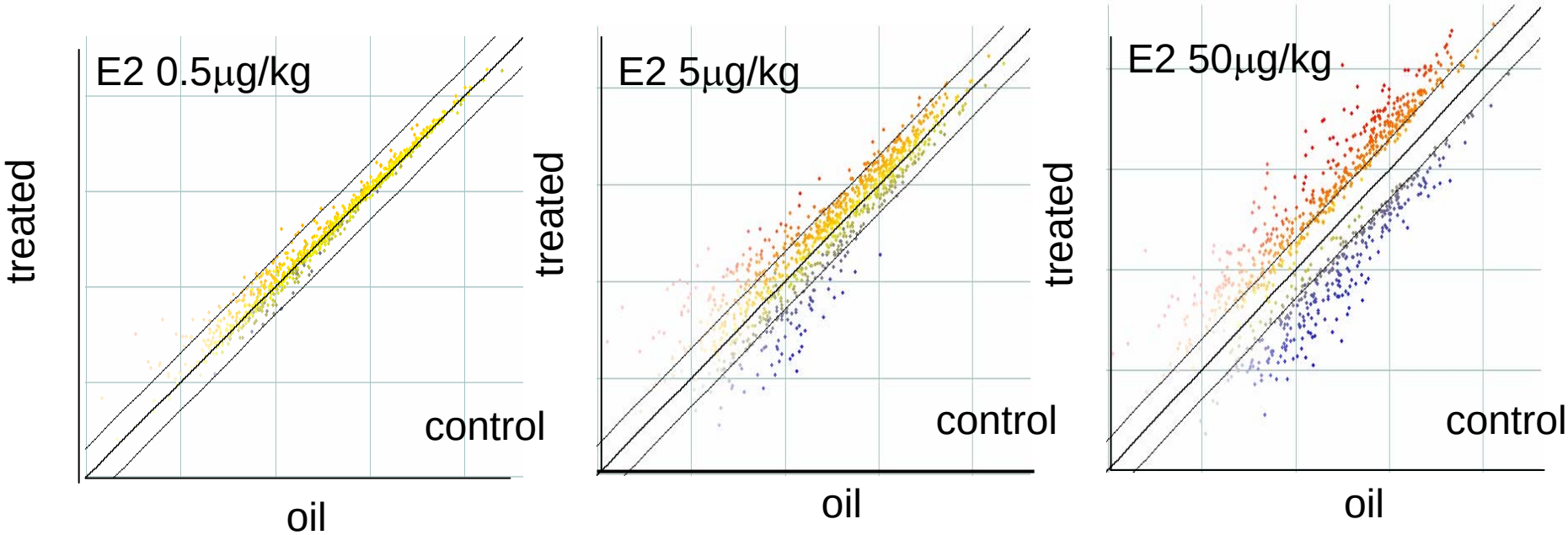
Assign Intensities

Re-scaling and Thresholding

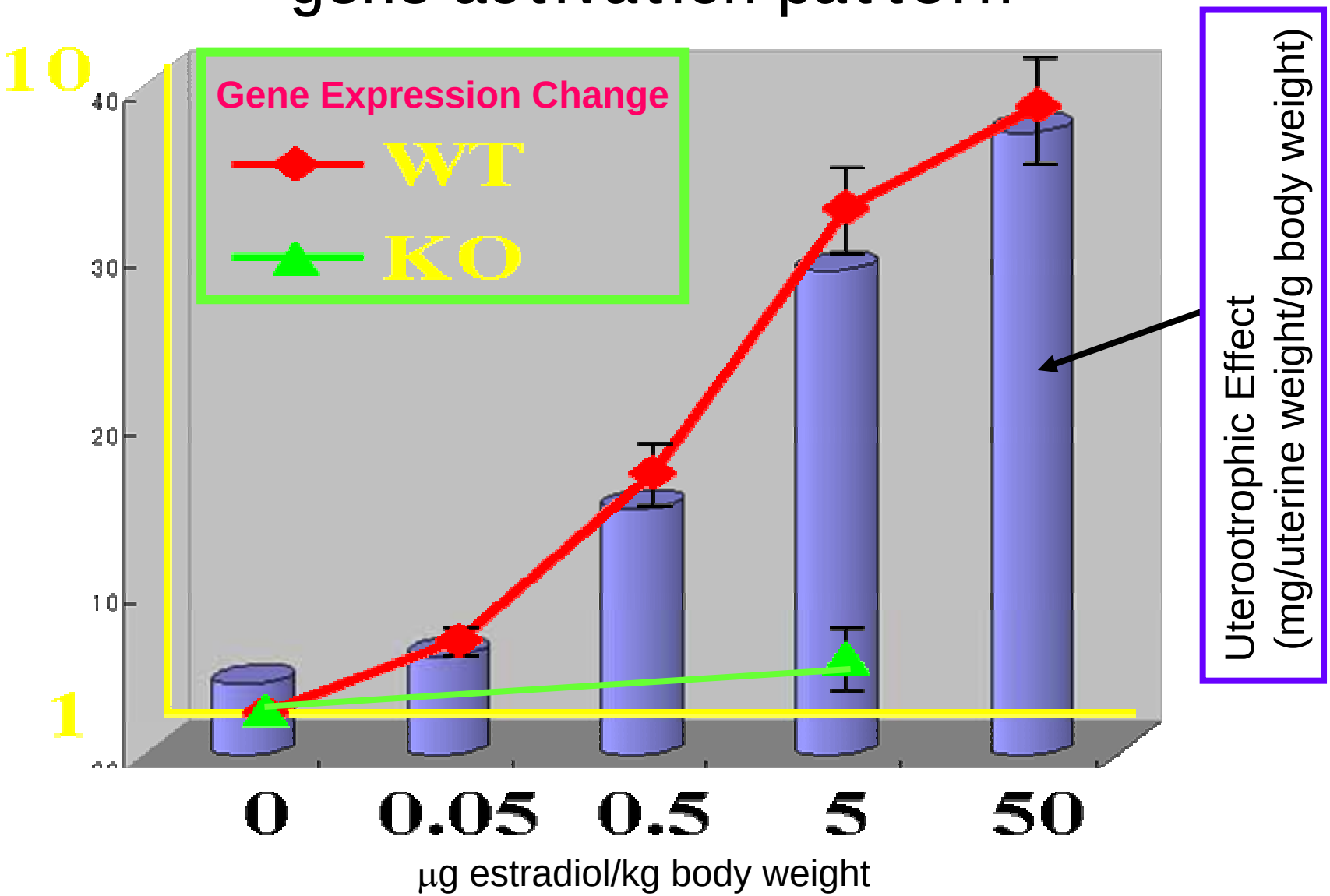
	0hr		1hr		2hr		6hr			1hr		2hr		6hr				normalized				
ID	AD	C	AD	C	AD	C	AD	C	max	Def	FC	Def	FC	Def	FC	max	min	0hr	1hr1	2hr	6hr	cla
93853_at	1002.4	M	214.789	P	266.83	P	784.2	P	1002.39709	NC	-2	NC	-2	I	2	2	-2	0.9168264	-0.7419059	-0.6323026	0.45738217	0
102241_f_at	1406.63	A	335.128	P	435.6	P	909.1	A	1406.63231	I	1	NC	1	NC	1	1	1	1.0542945	-0.7246778	-0.5578615	0.22824481	0
100696_at	1451.35	P	1111.34	P	59.401	A	677	P	1451.35056	NC	-1	MD	-6	NC	-1	-1	-6	0.85174423	0.38955197	-1.0403936	-0.2009028	0
98309_at	1560.27	A	513.479	A	882.05	P	383.1	A	1560.26826	NC	-1	I	2	NC	-1	2	-1	1.1223377	-0.4969357	0.07320636	-0.6986085	0
104020_at	2174.81	P	822.717	P	567.61	A	1009	A	2174.81206	NC	-2	NC	-2	D	-2	-2	-2	1.1843921	-0.3685035	-0.6615021	-0.1543864	0
104030_at	9317.78	P	5936.89	P	1827.7	P	3716	P	9317.77685	NC	-2	D	-4	D	-2	-2	-4	1.0447785	0.18704267	-0.8554537	-0.3763672	0
103086_at	1276.02	P	560.943	P	348.86	P	611.2	P	1276.01962	NC	-2	NC	-3	D	-2	-2	-3	1.1744918	-0.2816316	-0.7135006	-0.1793598	0
92525_i_at	2417.44	P	873.537	P	335.66	P	1145	A	2417.44175	NC	-2	NC	-4	D	-2	-2	-4	1.132446	-0.2953005	-0.7927099	-0.0444357	0
95597_at	1136.55	P	601.216	P	350.27	P	302	P	1136.55183	NC	-2	NC	-2	MD	-2	-2	-2	1.1505014	0.00792061	-0.5276707	-0.6307515	0
97719_at	1163.56	P	1134.83	P	317.75	A	548.5	A	1163.55988	NC	-1	NC	-3	D	-2	-1	-3	0.71681714	0.66151893	-0.9112725	-0.4670636	0
96172_at	2689.29	P	1715.91	P	1497.7	P	744.6	A	2689.29326	NC	-1	D	-2	D	-2	-1	-2	1.0467241	0.05504575	-0.1672246	-0.9345453	0
99988_at	1060.4	P	652.516	P	620.41	P	249.7	A	1060.39798	NC	-2	NC	-2	D	-2	-2	-2	1.0215878	0.01666112	-0.062452	-0.9757973	0
101221_at	1241.93	P	867.784	P	379.03	P	544.5	P	1241.92749	NC	-2	NC	-3	MD	-2	-2	-3	1.0364634	0.23463376	-0.8128153	-0.4582815	0
92316_f_at	3762.53	P	3323.95	P	1197.9	P	1274	P	3762.53113	NC	-1	MD	-3	D	-3	-1	-3	0.8337983	0.56743425	-0.7237726	-0.6774603	0
103963_f_at	2020.73	P	1138.19	P	617.11	P	601.3	A	2020.73336	NC	-1	NC	-3	D	-3	-1	-3	1.1356077	0.05377405	-0.5849739	-0.6044079	0
95104_at	4352.72	P	2857.93	P	2071	P	892	A	4352.72341	NC	-1	NC	-2	D	-3	-1	-3	1.01758	0.17689429	-0.2656838	-0.9287903	0
97138_at	1803.78	P	1030.79	P	577.98	P	155.9	A	1803.78346	NC	-2	NC	-2	D	-3	-2	-3	1.0558655	0.16060306	-0.3638408	-0.8526279	0
97319_at	1796.26	P	1445.03	P	897.61	P	575.6	A	1796.25663	NC	-1	NC	-2	D	-3	-1	-3	0.9232465	0.39823446	-0.420044	-0.9014368	0
97521_at	1215.36	P	675.529	P	779.28	P	316.4	A	1215.3622	NC	-2	NC	-1	D	-3	-1	-3	1.0340582	-0.1568857	0.07199898	-0.9491716	0
95953_at	10000.9	P	6540.02	P	5269.2	P	2965	P	10000.9477	NC	-1	D	-2	D	-3	-1	-3	1.0580829	0.09620886	-0.2569829	-0.8973095	0
101973_at	2401.06	P	1251.81	P	784.46	P	890.2	P	2401.05982	NC	-2	D	-3	D	-3	-2	-3	1.1791594	-0.0882945	-0.6037155	-0.4871494	0
102824_g_at	1354.39	P	1349.62	P	236.66	A	351.1	P	1354.38724	NC	-1	D	-5	NC	-3	-1	-5	0.7082206	0.701868	-0.7813017	-0.6287866	0
92934_at	1470.83	P	1036.55	P	641.62	P	488.1	A	1470.83178	NC	-2	NC	-2	D	-3	-2	-3	1.0422785	0.23621517	-0.4967958	-0.7816979	0
94516_f_at	13386.7	P	10180.9	P	7708.9	P	4053	P	13386.6944	NC	-1	D	-2	D	-3	-1	-3	0.9428653	0.27916932	-0.2326091	-0.9894253	0
96742_at	7935.5	P	5017.81	P	3377.8	P	2174	P	7935.49606	NC	-2	D	-2	D	-3	-2	-3	1.0828961	0.12813693	-0.4085192	-0.8025141	0
101502_at	3595.61	P	2659.93	P	2243.5	P	1116	P	3595.61254	NC	-2	NC	-2	D	-3	-2	-3	0.94673926	0.20341149	-0.1273673	-1.0227835	0
94469_at	6409.76	P	4785.76	P	3596.1	P	1936	P	6409.76267	NC	-2	D	-2	D	-3	-2	-3	0.9625267	0.26086953	-0.2531313	-0.9702649	0
102224_at	16390.3	P	11032.4	P	11057	P	4809	P	16390.3436	NC	-2	NC	-2	D	-3	-2	-3	0.9601426	0.03625844	0.04050355	-1.0369045	0
101430_at	5184.22	P	3004.64	P	1834.8	P	1698	P	5184.21711	NC	-2	D	-3	D	-3	-2	-3	1.1409307	0.037594	-0.5545915	-0.6239328	0
104366_at	7684.45	P	3222.31	P	3703.1	P	1988	P	7684.45403	NC	-2	MD	-2	NC	-3	-2	-3	1.1709763	-0.3071344	-0.1478678	-0.7159738	0
100706_f_at	1233.52	P	248.829	P	313.03	P	364.2	A	1233.51515	NC	-5	NC	-4	D	-4	-4	-5	1.2184166	-0.5112708	-0.3984933	-0.3086526	0
94354_at	5065.56	P	3546.89	P	3150.1	P	1462	P	5065.5588	NC	-1	NC	-2	D	-4	-1	-4	0.9700487	0.1327755	-0.0859739	-1.0168505	0
93780_at	1863.11	P	1353.94	P	1161.1	P	596.3	P	1863.11262	NC	-2	NC	-2	D	-4	-2	-4	0.9664392	0.17209683	-0.1286748	-1.0098617	0
97958_at	1364.57	P	691.83	P	641.62	P	393	P	1364.5706	NC	-2	NC	-2	D	-4	-2	-4	1.1626621	-0.1589951	-0.2576372	-0.7460299	0
92935_at	1029.85	A	845.251	P	248.92	A	269.5	A	1029.8479	NC	-1	D	-4	NC	-4	-1	-4	0.88313353	0.5052929	-0.715306	-0.6731206	0
104618_at	3761.65	P	2466.23	P	2146	P	1015	P	3761.64562	NC	-1	NC	-2	D	-4	-1	-4	1.0220244	0.08607557	-0.1453235	-0.9627763	0
101090_at	2088.47	P	1446.47	P	1128.1	P	572.9	A	2088.47486	NC	-2	NC	-2	MD	-4	-2	-4	1.0058587	0.1774082	-0.2333641	-0.9499031	0
101578_f_at	2508.65	P	1126.2	P	874.51	P	466.9	A	2508.64926	NC	-2	NC	-2	D	-4	-2	-4	1.1657265	-0.1086589	-0.3406786	-0.716389	0
95339_r_at	2768.99	P	892.715	P	639.73	P	736.5	A	2768.98914	NC	-3	D	-4	D	-4	-3	-4	1.2182285	-0.2959886	-0.5001526	-0.4220872	0
103210_at	1080.32	P	537.451	P	433.25	P	261.9	A	1080.32195	NC	-2	NC	-3	D	-4	-2	-4	1.1597588	-0.0941714	-0.3348633	-0.7307242	0
101633_at	2260.71	P	1434	P	651.52	A	540	A	2260.70652	NC	-2	D	-4	D	-4	-2	-4	1.0621147	0.2171487	-0.5826166	-0.6966466	0
96764_at	4989.4	P	4057.97	P	1544.4	P	932.1	P	4989.40496	NC	-1	D	-3	D	-5	-1	-5	0.88253194	0.49266005	-0.5594423	-0.8157498	0
104453_at	3363.17	P	1986.79	P	1849	P	763.1	P	3363.16621	NC	-2	NC	-2	MD	-5	-2	-5	1.0511116	-0.0028333	-0.1083791	-0.9398992	0
93569_f_at	1187.91	P	671.214	P	580.33	P	179.4	A	1187.91139	NC	-1	NC	-1	D	-5	-1	-5	1.0496941	0.03248984	-0.1464235	-0.9357601	0
93638_s_at	5044.31	P	3875.78	P	1553.4	P	959.6	P	5044.30657	NC	-1	D	-3	D	-5	-1	-5	0.92701155	0.43148994	-0.5533474	-0.805154	0
102117_at	2778.73	P	850.524	P	782.11	P	376.8	P	2778.72975	NC	-2	NC	-3	MD	-5	-2	-5	1.2013596	-0.2631926	-0.3151584	-0.6230087	0
103742_at	1213.15	P	464.576	A	418.63	A	187.9	A	1213.14842	NC	-2	D	-2	D	-5	-2	-5	1.1785352	-0.1954825	-0.2798133	-0.7032396	0
100548_at	3384.86	P	1945.56	P	1520.4	P	646.8	A	3384.8612	NC	-2	NC	-2	D	-5	-2	-5	1.0790496	0.05084284	-0.2529059	-0.8769867	0
94100_s_at	2008.78	P	778.129	P	1071.6	P	234.4	A	2008.77898	NC	-2	NC	-2	D	-6	-2	-6	1.0831012	-0.2693362	0.05314076	-0.8669059	0
103402_at	3321.1	P	1917.28	P	1890	P	455.2	M	3321.1045	NC	-2	NC	-2	D	-6	-2	-6	0.99453056	0.01492061	-0.0041307	-1.0053205	0
102104_f_at	1340.22	P	705.734	P	439.85	P	13.52	A	1340.21908	NC	-2	MD	-3	D	-6	-2	-6	1.0512221	0.11888306	-0.2718224	-0.8982827	0
102851_s_at	1269.82	P	52.2588	A	255.52	A	13.52	A	1269.82105	NC	-4	NC	-3	D	-6	-3	-6	1.2048324	-0.4773791	-0.1965536	-0.5308996	0
102257_at	1825.04	P	580.121	P	961.72	P	5E-05	A	1825.03569	I	-2	MI	1	NC	-7	1	-7	1.0487435	-0.2790052	0.1279878	-0.8977261	0
92307_at	1123.27	P	688.954	M	493.59	A	93.75	A	1123.26918	NC	-2	NC	-2	MD	-7	-2	-7	0.9986465	0.16993949	-0.2028286	-0.965757	0
102202_s_at	1390.25	P	595.463	P	561.01	P	5E-05	A	1390.25038	MD	-2	MD	-2	D	-10	-2	-10	1.07617	-0.0588612	-0.1080704	-0.9092383	0
96224_at	1489.43	P	825.114	P	828.31	P	5E-05	A	1489.42748	NC	-2	NC	-2	D	-10	-2	-10	0.94209415	0.05274906	0.05702407	-1.0518671	0
102817_at	2489.61	P	915.728	P	723.18	P	197.4	P	2489.6108	MD	-3	NC	-4	D	-13	-3	-13	1.1653231	-0.137173	-0.2965215	-0.7316285	0
93351_at	2089.36	P	1307.91	P	742.04	P	147.8	P	2089.36037	NC	-2	D	-4	D	-14	-2	-14	1.0041999	0.23302059	-0.3254149	-0.9118056	0
104437_at	4888.9	P	2894.85	P	2283.1	P	210.5	A	4888.8996	NC	-2	D	-2	D	-18	-2	-18	0.9831607	0.13796808	-0.1213067	-0.9998223	0
104088_at	4.4E-05	A	1365.44	P	1579.3	A	676.1	A	1579.3	I	19	I	20	NC	16	20	16	-1.0322044	0.52481097	0.7686741	-0.2612807	1
93985_at	4.4E-05	A	7456.71	P	7349.2	P	2500	P	7456.71165	I	36	I	37	I	14	37	14	-0.9556468	0.6914522	0.6676968	-0.4035024	1
97387_at	4.4E-05	A	806.416	P	1853.2	P	852.7	P	1853.20248	I	8	I	14	I	14	14	8	-0.9447681	-0.0771186	1.0491533	-0.0272667	1
93518_at	4.4E-05	A	2101.38	P	2741.9	P	794.6	P	2741.85337	I	18	I	22	NC	12	22	12	-0.9274926	0.45531675	0.8767787	-0.4046025	1

Clustering

Selection of estrogen response genes



Mouse OVX → E2 → uterine → RNA analysis

2W 6 h

Uterotrophic effect and gene activation pattern