

List of Supplementary Tables

Supplementary Table S1 - The list of drug metabolizing CYP enzymes (Data as on November 5, 2013). Protein names underlined are updated ones compared to data of Martignoni et al. (2006).

Supplementary Table S2 - Network centrality parameters of human CYP PPI network. The hub proteins and the centrality parameters are marked in bold.

Supplementary Table S3- Network centrality parameters of mouse CYP PPI network. The hub proteins and the centrality parameters are marked in bold.

Supplementary Table S4 - Network centrality parameters of rat CYP PPI network. The hub proteins and the centrality parameters are marked in bold.

Supplementary Table S5- Average clustering coefficient and characteristic path length distribution of human CYP PPI network by removal of hub proteins in the order of degree. The average clustering coefficient and characteristic path length of the reference human CYP PPI network are 0.725 and 2.095, respectively.

Supplementary Table S6- Average clustering coefficient and characteristic path length distribution of mouse CYP PPI network by removal of hub proteins in the order of degree. The average clustering coefficient and characteristic path length of the reference mouse CYP PPI network are 0.693 and 1.937, respectively.

Supplementary Table S7- Average clustering coefficient and characteristic path length distribution of rat CYP PPI network by removal of hub proteins in the order of degree. The average clustering coefficient and characteristic path length of the reference mouse CYP PPI network are 0.707 and 1.879, respectively.

Supplementary Table S1

Family	Subfamily	Human	Mouse	Rat
CYP1	1A 1B	1A1, 1A2 1B1	1A1, 1A2 1B1	1A1, 1A2 1B1

CYP2	2A	2A3, 2A4, 2A6, 2A7, 2A13	2A4, 2A5, 2A12, 2A22	2A1, 2A2, 2A3
	2B	2B6, 2B7	2B9, 2B10, 2B13, 2B19, 2B23	2B1, 2B2, 2B3, 2B12, 2B13, 2B15, 2B21
	2C	2C8, 2C9, 2C18, 2C19	2C29, 2C37, 2C38, 2C39, 2C40, 2C44, 2C50, 2C53, 2C54, 2C55, 2C65, 2C67, 2C68, 2C69, 2C70	2C6, 2C7, 2C11, 2C12, 2C13, 2C22, 2C23, 2C24, 2C79, 2C80
	2D	2D6, 2D7, 2D8	2D9, 2D10, 2D11, 2D12, 2D13, 2D22, 2D26, 2D34, 2D40	2D1, 2D2, 2D3, 2D4, 2D5, 2D18
	2E	2E1	2E1	2E1
	2F	2F1	2F2	-
	2J	2J2	2J5, 2J6, 2J8, 2J9, 2J11, 2J12, 2J13	2J2/2J4, 2J3/2J9, 2J10, 2J13, 2J16
	2R	2R1	2R1	2R1
	2S	2S1	2S1	2S1
	2U	2U1	2U1	2U1
	2W	2W1	2W1	2W1
CYP3	3A	3A4, 3A5, 3A7, 3A43	3A1, 3A11, 3A13, 3A16, 3A25, 3A41, 3A44, 3A57, 3A59	3A1/3A23, 3A2, 3A9, 3A18, 3A62, 3A73

Supplementary Table S2

S. No.	Protein	Degree	Betweenness Centrality BC(n)	Closeness Centrality CC(n)
1	CYP3A4	90	0.08760567	0.68464730

2	CYP1A2	86	0.07765945	0.67346939
3	CYP2E1	86	0.07459228	0.67346939
4	CYP1A1	83	0.09792858	0.66532258
5	CYP2B6	83	0.04589389	0.66532258
6	CYP2A6	79	0.27210067	0.64960630
7	CYP2C8	77	0.03946531	0.59139785
8	CYP2C9	76	0.04954342	0.64705882
9	CYP4A11	71	0.07355107	0.63218391
10	CYP3A5	61	0.01297470	0.61111111
11	CYP2C19	54	0.01527446	0.54098361
12	CYP1B1	48	0.01299541	0.51562500
13	CYP2C18	47	0.01551213	0.53225806
14	GSTP1	46	0.01262993	0.58098592
15	GSTM4	46	0.01262993	0.58098592
16	GSTK1	46	0.01262993	0.58098592
17	CYP2S1	46	0.00339092	0.52884615
18	GSTA4	45	0.01127786	0.57894737
19	GSTA2	45	0.01127786	0.57894737
20	UGT1A4	44	0.00650047	0.57291667
21	UGT1A8	44	0.00650047	0.57291667
22	UGT1A3	44	0.00650047	0.57291667
23	UGT1A7	44	0.00650047	0.57291667
24	CYP2A13	43	0.00301452	0.56896552
25	CYP2J2	42	0.00620768	0.51724138
26	UGT1A9	40	0.00366353	0.56506849
27	UGT1A10	40	0.00366353	0.56506849
28	UGT1A1	40	0.00366353	0.56506849
29	ALOX15	39	0.01203317	0.49253731
30	GSTO1	39	0.00642750	0.56701031
31	ALOX15B	39	0.00427807	0.49253731
32	UGT1A6	39	0.00334477	0.56313993
33	UGT1A5	37	0.00625903	0.55932203
34	UGT2A1	37	0.00625903	0.55932203
35	UGT2B11	37	0.00625903	0.55932203
36	PLB1	36	0.00079719	0.50769231
37	PLA2G16	36	0.00079719	0.50769231
38	CYP3A7	35	0.00475690	0.54276316
39	EPHX1	35	0.00210115	0.55743243
40	MGST3	35	0.00210115	0.55743243
41	MGST2	34	0.00109977	0.55555556
42	GSTO2	34	0.00109977	0.55555556
43	GSTA1	34	0.00109977	0.55555556
44	CYP4F2	34	0.00052115	0.48529412
45	ALOX12	34	0.00052115	0.48529412
46	ALOX12B	34	0.00052115	0.48529412

47	CYP4F3	34	0.00052115	0.48529412
48	CYP2U1	34	0.00052115	0.48529412
49	UGT2B17	33	0.00365860	0.55183946
50	UGT2B7	33	0.00365860	0.55183946
51	GSTM1	33	0.00100991	0.55369128
52	MGST1	33	0.00091727	0.55369128
53	PTGS1	33	0.00051422	0.48387097
54	AOX1	32	0.00526903	0.54276316
55	UGT2B4	32	0.00334477	0.55000000
56	GSTM3	32	0.00141662	0.55000000
57	GSTM5	32	0.00141662	0.55000000
58	GSTA5	32	0.00082277	0.55000000
59	PTGS2	32	0.00045177	0.48245614
60	GSTA3	31	0.00064027	0.54817276
61	GSTM2	31	0.00064027	0.54817276
62	GSTT1	31	0.00064027	0.54817276
63	GSTT2B	31	0.00064027	0.54817276
64	ALDH1A2	30	0.00056906	0.53921569
65	ALDH1A1	30	0.00056906	0.53921569
66	CYP26B1	29	0.00038966	0.53745928
67	CYP26C1	29	0.00038966	0.53745928
68	CYP26A1	29	0.00038966	0.53745928
69	CYP2D6	27	0.01124713	0.52050473
70	HSD3B2	27	0.00158040	0.48961424
71	HSD3B1	27	0.00158040	0.48961424
72	HSD17B6	25	0.00042409	0.46742210
73	HSD11B1	22	0.00034898	0.51886792
74	KIAA1009	22	0.00006192	0.41561713
75	PAFAH1B1	22	0.00006192	0.41561713
76	ENKD1	22	0.00006192	0.41561713
77	ODF3L2	22	0.00006192	0.41561713
78	C9ORF9	22	0.00006192	0.41561713
79	CLMP	22	0.00006192	0.41561713
80	KIAA1383	22	0.00006192	0.41561713
81	HID1	22	0.00006192	0.41561713
82	HSD17B7	21	0.00082626	0.46089385
83	PLA2G6	21	0.00027939	0.48529412
84	PLA2G4A	21	0.00027939	0.48529412
85	CYP19A1	21	0.00025262	0.46089385
86	TMEM214	21	0.00004930	0.41457286
87	SNPH	21	0.00004419	0.41457286
88	CLASP2	21	0.00004416	0.41457286
89	GRAMD3	21	0.00004416	0.41457286
90	PLA2G2C	20	0.00027939	0.48387097
91	PLA2G3	20	0.00027939	0.48387097

92	PLA2G12A	20	0.00027939	0.48387097
93	PLA2G4D	20	0.00027939	0.48387097
94	PLA2G1B	20	0.00027939	0.48387097
95	PLA2G2E	20	0.00027939	0.48387097
96	PLA2G2F	20	0.00027939	0.48387097
97	PLA2G2A	20	0.00027939	0.48387097
98	PLA2G12B	20	0.00027939	0.48387097
99	PLA2G5	20	0.00027939	0.48387097
100	PLA2G4F	20	0.00027939	0.48387097
101	PLA2G4E	20	0.00027939	0.48387097
102	PLA2G10	20	0.00027939	0.48387097
103	HSD17B1	20	0.00016890	0.45961003
104	CBR3	20	0.00014714	0.51562500
105	VIMP	20	0.00004634	0.41353383
106	DCXR	20	0.00004634	0.41353383
107	REEP2	20	0.00004568	0.41353383
108	ARL3	20	0.00004152	0.41353383
109	SRPRB	20	0.00003641	0.41353383
110	SERP1	20	0.00003230	0.41353383
111	CYP2F1	20	0.00000000	0.38461538
112	PLA2G4B	19	0.00024795	0.48245614
113	PLA2G4C	19	0.00023018	0.48104956
114	BCL10	19	0.00004199	0.41250000
115	GTSE1	19	0.00003227	0.41250000
116	SCTR	18	0.00002336	0.41147132
117	CLASP1	18	0.00002336	0.41147132
118	HSD17B12	17	0.00058068	0.42307692
119	COMT	17	0.00058068	0.42307692
120	ADH1B	16	0.00083663	0.44836957
121	ADH1A	16	0.00083663	0.44836957
122	ADH7	16	0.00083663	0.44836957
123	ADH6	16	0.00083663	0.44836957
124	HSD17B2	16	0.00013873	0.42199488
125	UBC	13	0.00104314	0.40243902
126	CYP17A1	13	0.00055426	0.47008547
127	GPX8	11	0.00426132	0.42968750
128	GPX3	10	0.00016650	0.42857143
129	GPX2	10	0.00016650	0.42857143
130	GPX1	10	0.00016650	0.42857143
131	ALDH3A1	10	0.00002772	0.42416452
132	ALDH3B2	10	0.00002772	0.42416452
133	ALDH1A3	10	0.00002772	0.42416452
134	STS	9	0.00001666	0.43535620
135	CYP7A1	9	0.00001666	0.43535620
136	EPHX2	8	0.00008612	0.46089385

137	SULT2B1	8	0.00000393	0.43421053
138	ASMT	6	0.00008053	0.43307087
139	HELZ2	6	0.00000000	0.44000000
140	NCOA6	6	0.00000000	0.44000000
141	TBL1XR1	6	0.00000000	0.44000000
142	NCOA2	6	0.00000000	0.44000000
143	CHD9	6	0.00000000	0.44000000
144	IDO1	5	0.00018595	0.43193717
145	TBL1X	5	0.00007391	0.43882979
146	IDO2	4	0.00000635	0.43080940
147	GPX6	4	0.00000000	0.37671233
148	NAT1	3	0.00064660	0.43650794
149	XDH	3	0.00002636	0.40740741
150	FMO1	3	0.00000336	0.42199488
151	FMO2	3	0.00000336	0.42199488
152	FMO3	3	0.00000336	0.42199488
153	FMO4	3	0.00000336	0.42199488
154	SMARCD3	3	0.00000000	0.43650794
155	CARM1	3	0.00000000	0.43650794
156	TGS1	3	0.00000000	0.43650794
157	SULT2A1	3	0.00000000	0.43766578
158	UPP2	3	0.00000000	0.39663462
159	UMPS	3	0.00000000	0.39663462
160	DPYD	3	0.00000000	0.39663462
161	MAOA	3	0.00000000	0.42091837
162	MAOB	3	0.00000000	0.42091837
163	NR1I3	2	0.00000000	0.42525773
164	GPX7	2	0.00000000	0.33673469
165	AMFR	1	0.00000000	0.40740741
166	FOXA1	1	0.00000000	0.34810127

Supplementary Table S3

S. No.	Protein	Degree	Betweenness Centrality BC(n)	Closeness Centrality CC(n)
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1	CYP2C40	104	0.02079840	0.72246696
2	CYP2C65	104	0.01876055	0.72246696
3	CYP1A2	103	0.03942039	0.70386266
4	CYP1A1	102	0.11913876	0.71615721
5	CYP2C66	102	0.01831136	0.71615721
6	CYP2C70	102	0.01888152	0.71929825
7	CYP2C37	100	0.01514877	0.70995671
8	CYP2C38	99	0.01248452	0.70689655
9	CYP2C44	98	0.01338895	0.70689655
10	CYP2C68	97	0.01673395	0.68619247
11	CYP2B13	96	0.02298043	0.69787234
12	CYP2C54	96	0.01288974	0.69787234
13	CYP2C29	95	0.01341924	0.69787234
14	CYP2B23	94	0.01213862	0.69198312
15	CYP2C55	94	0.01064725	0.69198312
16	CYP2B9	93	0.02246013	0.69198312
17	CYP2C39	93	0.00996952	0.68333333
18	CYP4A14	93	0.00819293	0.65863454
19	CYP3A25	92	0.02045170	0.67213115
20	CYP4A12A	92	0.01100596	0.67213115
21	CYP4A12B	92	0.00644724	0.65338645
22	CYP4A32	92	0.00686610	0.65600000
23	CYP3A16	91	0.01920373	0.66938776
24	CYP3A41A	90	0.00801428	0.66666667
25	CYP2B19	89	0.00860847	0.67213115
26	CYP3A11	89	0.00727718	0.66396761
27	CYP3A13	89	0.00921975	0.66396761
28	CYP4A10	88	0.00560059	0.64566929
29	CYP2E1	87	0.03834680	0.66938776
30	CYP3A44	87	0.00684991	0.65863454
31	CYP2B10	84	0.00752752	0.66396761
32	CYP2J5	67	0.00301735	0.57142857
33	CYP2J11	66	0.00260030	0.56944444
34	CYP2J12	66	0.01417441	0.56944444
35	CYP2J13	66	0.00260030	0.56944444
36	CYP2J8	65	0.00217364	0.56747405
37	CYP2J6	64	0.00205640	0.56551724
38	CYP2J9	64	0.00229523	0.56551724
39	PLB1	61	0.00105516	0.55218855
40	UGT1A10	60	0.00331015	0.59205776
41	HSD3B5	59	0.01747014	0.59205776
42	UGT2A3	59	0.00515097	0.58992806
43	UGT2B37	59	0.00714880	0.59420290
44	UGT2B5	59	0.00714880	0.59420290
45	HSD3B2	58	0.01671854	0.58992806

46	HSD3B4	58	0.01671854	0.58992806
47	HSD3B6	58	0.01671854	0.58992806
48	UGT1A5	58	0.00329343	0.58781362
49	UGT1A6B	58	0.00329343	0.58781362
50	UGT1A9	58	0.00301082	0.58781362
51	UGT2A1	58	0.00329343	0.58781362
52	UGT2B1	58	0.00329343	0.58781362
53	UGT2B34	58	0.00329343	0.58781362
54	UGT2B35	58	0.00329343	0.58781362
55	UGT2B36	58	0.00329343	0.58781362
56	CYP26A1	57	0.00052800	0.56944444
57	CYP26B1	57	0.00052800	0.56944444
58	CYP26C1	57	0.00052800	0.56944444
59	UGT1A1	57	0.00309063	0.58571429
60	UGT2B38	57	0.00671676	0.58992806
61	HSD3B1	56	0.01509317	0.58571429
62	PLA2G16	56	0.00042000	0.54304636
63	UGT1A7C	56	0.00285207	0.58362989
64	ALDH1A1	55	0.00042300	0.56551724
65	ALDH1A7	55	0.00042300	0.56551724
66	AOX3	55	0.00048200	0.56551724
67	ALDH1A2	54	0.00042300	0.56357388
68	CYP2S1	53	0.01077691	0.56551724
69	CYP2U1	53	0.00045200	0.51735016
70	CYP4F14	53	0.00142076	0.56164384
71	CYP4F13	52	0.00058800	0.51572327
72	CYP4F18	52	0.00039600	0.51572327
73	UGT1A2	51	0.00254167	0.56551724
74	UGT1A6A	51	0.00254167	0.56551724
75	CYP1B1	50	0.02582831	0.51090343
76	PLA2G4A	47	0.00031100	0.52733119
77	AOX3L1	45	0.00029000	0.54666667
78	PLA2G2C	45	0.00023200	0.52396166
79	PLA2G2E	45	0.00023200	0.52396166
80	PLA2G3	45	0.00023200	0.52396166
81	PLA2G4C	45	0.00021100	0.52396166
82	PLA2G6	45	0.00017700	0.52396166
83	PLA2G4B	44	0.00013800	0.52229299
84	PLA2G4D	44	0.00015500	0.52229299
85	PLA2G4E	44	0.00013800	0.52229299
86	AOX4	43	0.00026000	0.54125413
87	CYP17A1	43	0.01075581	0.55972696
88	PLA2G2D	41	0.00016600	0.51735016
89	CYP2A12	40	0.00022700	0.53074434
90	CYP2A4	40	0.00022700	0.53074434

91	CYP2A5	40	0.00022700	0.53074434
92	GSTK1	40	0.01428969	0.54125413
93	PLA2G12B	40	0.00008470	0.51572327
94	AOX1	39	0.00020900	0.52903226
95	CYP7A1	39	0.00977838	0.55218855
96	PLA2G12A	38	0.00007640	0.50461538
97	PLA2G4F	36	0.00008470	0.50773994
98	PLA2G5	36	0.00004970	0.49546828
99	GM20441	35	0.00665962	0.52903226
100	GSTM3	35	0.00756092	0.52564103
101	PLA2G10	35	0.00000791	0.48955224
102	PTGS1	34	0.00005570	0.48235294
103	GSTA3	33	0.00695657	0.52903226
104	GSTA1	32	0.00423205	0.51898734
105	GSTM6	32	0.00423205	0.51898734
106	MGST2	32	0.00423205	0.51898734
107	PLA2G1B	31	0.00005640	0.48377581
108	ALOX12B	30	0.00009040	0.47813411
109	EPHX2	30	0.03743042	0.51735016
110	MGST1	30	0.01426603	0.52229299
111	HSD17B6	29	0.00037900	0.50773994
112	GSTO2	28	0.00231564	0.51090343
113	CYP19A1	27	0.00020700	0.50461538
114	HSD17B7	27	0.00032500	0.49397590
115	HSD17B2	26	0.00034600	0.49848024
116	PTGS2	26	0.00006640	0.46991404
117	EPHX1	25	0.00066400	0.49101796
118	GSTA2	25	0.00066400	0.49101796
119	GSTA4	25	0.00066400	0.49101796
120	GSTM4	25	0.00066400	0.49101796
121	GSTT2	25	0.00066400	0.49101796
122	GSTO1	24	0.00034600	0.45810056
123	MGST3	24	0.00034600	0.45810056
124	GPX1	23	0.00065000	0.47536232
125	GPX2	23	0.00065000	0.47536232
126	GPX3	23	0.00065000	0.47536232
127	GSTM1	23	0.00024700	0.45682451
128	GSTM2	23	0.00024700	0.45682451
129	GSTM5	23	0.00024700	0.45682451
130	GSTM7	23	0.00024700	0.45682451
131	CYP2F2	21	0.00000000	0.37357631
132	GSTT1	21	0.00000000	0.37357631
133	HSD17B1	20	0.00018400	0.44444444
134	H2-KE6	19	0.00018400	0.44324324
135	HSD17B12	19	0.00018400	0.44324324

136	SULT2B1	16	0.00051300	0.43501326
137	PLA2G2F	14	0.00000085	0.45054945
138	ADH1	11	0.01643239	0.46067416
139	CYP2D26	10	0.01220821	0.42819843
140	CYP2D9	9	0.00005420	0.43157895
141	GPX5	9	0.00000000	0.43501326
142	CYP2D10	8	0.00001310	0.38228438
143	CYP2D11	8	0.00001310	0.38228438
144	CYP2D12	8	0.00001310	0.38228438
145	CYP2D22	8	0.00001310	0.38228438
146	CYP2D34	8	0.00001310	0.38228438
147	CYP2D40	8	0.00001310	0.38228438
148	HSD11B1	6	0.00000774	0.43733333
149	FMO3	5	0.00000000	0.43386243
150	SLC22A26	5	0.00000000	0.43386243
151	SULT3A1	5	0.00000000	0.43386243
152	ASMT	4	0.00002490	0.42159383
153	ALDH3B1	3	0.00000000	0.42708333
154	IDO1	3	0.00000000	0.42051282
155	IDO2	3	0.00000000	0.42051282
156	SULT2A1	3	0.00000000	0.42051282
157	SULT2A3	3	0.00000000	0.42051282
158	ALDH1A3	2	0.00000000	0.40493827
159	ALDH3A1	2	0.00000000	0.34893617
160	ALDH3B2	1	0.00000000	0.31599229
161	CYP2C50	1	0.00000000	0.34166667
162	CYP2C67	1	0.00000000	0.34166667
163	CYP2C69	1	0.00000000	0.34166667
164	CYP3	1	0.00000000	0.36363636
165	RDH7	1	0.00000000	0.30036630

Supplementary Table S4

S. No.	Protein	Degree	Betweenness Centrality BC(n)	Closeness Centrality CC(n)
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1	CYP2C13	89	0.03141644	0.76331361
2	CYP2C22	89	0.02849139	0.76331361
3	CYP1A2	87	0.07898528	0.75000000
4	CYP2C11	87	0.02578649	0.75438596
5	CYP2C6	87	0.02648254	0.75438596
6	CYP2C23	86	0.02547078	0.74137931
7	CYP2C7	86	0.02421599	0.75000000
8	CYP2C12	84	0.02435053	0.74137931
9	CYP2B21	80	0.02134528	0.72471910
10	CYP4A8	79	0.04039881	0.68983957
11	CYP2B2	79	0.02227807	0.72067039
12	CYP2B3	78	0.01790742	0.71666667
13	CYP2B12	78	0.01790742	0.71666667
14	CYP1A1	76	0.09558997	0.69729730
15	CYP4A1	76	0.02343825	0.67894737
16	CYP4A2	76	0.02431832	0.67894737
17	CYP2B1	76	0.01373117	0.70108696
18	CYP2E1	75	0.04898473	0.69729730
19	CYP3A18	68	0.01313958	0.67187500
20	CYP3A1	68	0.01313958	0.67187500
21	CYP3A2	64	0.01300136	0.65816327
22	CYP2J4	56	0.00623692	0.61428571
23	CYP2J10	55	0.00573124	0.61137441
24	PLA2G16	50	0.00157326	0.58904110
25	ALOX15	49	0.00299350	0.56578947
26	PLB1	48	0.00110190	0.58636364
27	CYP2U1	47	0.00148438	0.55364807
28	ALOX5	45	0.00194202	0.54893617
29	CYP2S1	44	0.01147701	0.57333333
30	ALOX12B	43	0.00069000	0.54430380
31	CYP4F6	43	0.00089600	0.54430380
32	CYP4F1	42	0.00073300	0.54201681
33	CYP4F18	42	0.00089500	0.54201681
34	ALOX12E	42	0.00074500	0.54201681
35	HSD3B	41	0.02410349	0.58904110
36	HSD3B5	40	0.02236574	0.58636364
37	AOX4	40	0.00142926	0.56331878
38	AOX1	40	0.00142926	0.56331878
39	UGT1A9	40	0.00933602	0.58636364
40	UGT1A8	39	0.00812537	0.58371041
41	UGT2B17	39	0.00410677	0.58108108
42	ALOX12	39	0.00041500	0.53526971
43	AOX3L1	39	0.00048100	0.56086957
44	CYP26A1	39	0.00049500	0.56086957
45	CYP26B1	39	0.00049500	0.56086957

46	CYP26C1	39	0.00049500	0.56086957
47	UGT2B1	38	0.00306495	0.57847534
48	UGT2A3	38	0.00298658	0.57847534
49	UGT2B15	38	0.00298658	0.57847534
50	ALDH1A1	38	0.00141581	0.55844156
51	YC2	37	0.01226936	0.56086957
52	GSTO 2-2	37	0.01170838	0.56086957
53	UGT2B10	37	0.00200532	0.57589286
54	ALDH1A2	37	0.00048100	0.55603448
55	UGT2A1	37	0.00200532	0.57589286
56	UGT2B	37	0.00200532	0.57589286
57	UGT1A1	36	0.00276501	0.57333333
58	GSTM1	35	0.00371916	0.55603448
59	GSTA2	35	0.00371916	0.55603448
60	PLA2G2A	35	0.00091800	0.55128205
61	PLA2G2F	35	0.00078300	0.55364807
62	PLA2G3	35	0.00099900	0.55364807
63	UGT2B7	35	0.00236173	0.57079646
64	PLA2G12B	35	0.00078300	0.55364807
65	GSTM7	34	0.00349163	0.55364807
66	PLA2G4E	34	0.00049700	0.55128205
67	PLA2G6	34	0.00058200	0.54893617
68	PLA2G2D	34	0.00062000	0.55128205
69	PLA2G2C	34	0.00044500	0.55128205
70	PLA2G4C	34	0.00049700	0.55128205
71	PLA2G12A	34	0.00081100	0.55128205
72	PLA2G4D	33	0.00028800	0.54893617
73	PLA2G4B	33	0.00028800	0.54893617
74	GSTK1	32	0.00265889	0.54893617
75	PLA2G5	32	0.00023100	0.54430380
76	CYP17A1	29	0.01522251	0.55603448
77	PLA2G10	29	0.00052000	0.53750000
78	STS	28	0.01466075	0.55364807
79	EPHX1	28	0.00181206	0.53974895
80	SULT2B1	28	0.01466075	0.55364807
81	CYP2A1	27	0.00025200	0.52226721
82	CYP2A3	27	0.00025200	0.52226721
83	PLA2G1B	26	0.00035700	0.52653061
84	PLA2G4A	26	0.00027200	0.51807229
85	GSTM6	24	0.00076500	0.52868852
86	GSTM4	24	0.00085300	0.53086420
87	ALOX15B	24	0.00034800	0.49425287
88	PTGS2	23	0.00019400	0.47252747
89	PLA2G4F	22	0.00010700	0.51600000
90	MGST1	21	0.00021900	0.52016129

91	GSTM3	21	0.00017500	0.51394422
92	GSTA4	20	0.00000757	0.49425287
93	MGST3	20	0.00000757	0.49425287
94	GSTO1	20	0.00000757	0.49425287
95	MGST2	20	0.00000757	0.49425287
96	GSTM2	20	0.00000757	0.49425287
97	GSTP1	20	0.00000757	0.49425287
98	GSTT2	20	0.00000757	0.49425287
99	HSD17B7	19	0.00028500	0.49049430
100	CYP19A1	18	0.00033600	0.48496241
101	STE2	18	0.00048400	0.47777778
102	GPX6	16	0.00023700	0.48496241
103	EPHX2	15	0.03089603	0.48496241
104	GPX1	15	0.00016300	0.48314607
105	PTGS1	15	0.00009480	0.47426471
106	HSD17B6	12	0.00014000	0.42857143
107	GPX5	11	0.00000275	0.45422535
108	CYP7A1	10	0.00020500	0.38278932
109	GPX8	10	0.00000000	0.45263158
110	SMARCD3	9	0.00023100	0.47426471
111	NCOA6	8	0.00020100	0.47252747
112	TBL1XR1	7	0.00005360	0.47080292
113	TGS1	6	0.00006060	0.46739130
114	MED1	6	0.00000000	0.46909091
115	NCOA1	6	0.00000000	0.46909091
116	CYP2D1	6	0.00000303	0.37829912
117	CYP2D3	6	0.00000303	0.37829912
118	CYP2D2	6	0.00000303	0.37829912
119	CYP2D4	6	0.00000303	0.37829912
120	CYP2D5	6	0.00000303	0.37829912
121	ADH1C	6	0.00096300	0.40438871
122	CBR2	6	0.00002400	0.47426471
123	PRIC285	4	0.00000000	0.46402878
124	ALDH3A1	3	0.00014500	0.43728814
125	ALDH1A3	3	0.00014500	0.43728814
126	ALDH3B1	3	0.00010400	0.43728814
127	IDO1	1	0.00000000	0.41214058
128	NAT3	1	0.00000000	0.43000000
129	CYP1B1	1	0.00000000	0.32741117
130	CYP2J13	1	0.00000000	0.32741117

Supplementary Table S5

S.No.	List of hubs removed in the order of degree	Degree	Average clustering coefficient	Characteristic path length
1	CYP3A4	90	0.710	2.113
2	CYP1A2	86	0.708	2.140
3	CYP2E1	86	0.710	2.177
4	CYP1A1	83	0.700	2.238
5	CYP2B6	83	0.692	2.277
6	CYP2A6	79	0.644	2.190
7	CYP2C8	77	0.644	2.220
8	CYP2C9	76	0.644	2.272
9	CYP4A11	71	0.620	2.363
10	CYP3A5	61	0.617	2.491
11	CYP2C19	54	0.600	2.884
12	CYP1B1	48	0.587	3.106
13	CYP2C18	47	0.593	3.119

Supplementary Table S6

S.No.	List of hubs removed in the order of degree	Degree	Average Clustering coefficient	Characteristic path length
1	CYP2C40	104	0.691	1.944
2	CYP2C65	104	0.689	1.951
3	CYP1A2	103	0.668	1.966
4	CYP1A1	102	0.681	2.044
5	CYP2C66	102	0.679	2.053
6	CYP2C70	102	0.676	2.061
7	CYP2C37	100	0.674	2.069
8	CYP2C38	99	0.671	2.077
9	CYP2C44	98	0.668	2.085
10	CYP2C68	97	0.666	2.103
11	CYP2B13	96	0.666	2.115
12	CYP2C54	96	0.663	2.125

Supplementary Table S7

S. No.	List of hubs removed in the order of degree	Degree	Average Clustering coefficient	Characteristic path length
1	CYP2C22	89	0.703	1.888
2	CYP2C13	89	0.699	1.900
3	CYP1A2	87	0.698	1.925
4	CYP2C11	87	0.693	1.934
5	CYP2C6	87	0.695	1.944
6	CYP2C23	86	0.690	1.958
7	CYP2C7	86	0.685	1.970
8	CYP2C12	84	0.681	2.001
9	CYP2B21	80	0.685	2.019
10	CYP4A8	79	0.678	2.038
11	CYP2B2	79	0.681	2.059
12	CYP2B3	78	0.681	2.070
13	CYP2B12	78	0.679	2.113
14	CYP1A1	76	0.668	2.210
15	CYP4A1	76	0.667	2.229
16	CYP4A2	76	0.650	2.176
17	CYP2B1	76	0.645	2.213
18	CYP2E1	75	0.640	2.393