APPENDIX

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Table 1. *Predictive performance on 14 gene-disease associations using network induced by the BIOGPS using LEDK and MEDK kernels. We report the AUC-ROC (%) each kernel with (B) and without (A) using link enrichment.*

D	A	A1	A2	A3	A4	A5	B	B1	B2	B3	B4	B5
0	61.8	63.8	62.5	63.7	63.9	63.4	57.9	62.8	62.8	62.2	62.6	62.2
1	55.6	67.5	62.3	70.4	69.5	63.5	52.0	62.8	57.3	57.9	60.1	58.3
2	50.3	62.3	61.2	63.6	61.9	60.0	49.5	57.0	55.1	56.1	57.2	55.2
3	61.3	73.9	73.1	73.3	73.7	73.9	62.7	72.7	67.9	72.5	74.7	68.5
4	55.7	62.8	60.6	63.2	62.9	62.9	55.1	61.7	61.0	62.9	62.6	60.5
5	60.1	68.8	66.8	70.4	69.4	67.4	59.7	66.1	62.2	68.2	67.0	63.4
6	68.8	73.6	73.0	73.6	74.2	73.4	67.7	73.5	73.1	74.2	74.8	72.1
7	71.1	77.9	72.3	76.5	77.8	73.2	65.6	71.7	70.8	70.4	71.8	70.9
8	62.4	63.8	63.1	64.4	64.3	63.8	63.7	66.9	65.7	67.2	66.7	66.5
9	69.4	72.9	71.2	74.5	72.6	71.8	62.5	73.6	70.4	72.7	71.9	71.1
10	60.0	63.9	63.1	64.6	63.6	63.3	58.4	61.4	61.9	61.4	61.8	61.7
11	64.4	76.2	73.5	76.1	75.2	73.2	61.9	71.2	70.3	71.7	72.3	70.5
12	57.2	66.1	62.4	65.8	63.0	59.3	55.1	63.7	63.5	62.4	61.8	60.6
13	55.4	61.7	61.7	61.6	63.0	60.1	55.0	63.7	64.8	62.1	63.1	62.5
14	61.0	68.2	66.2	68.7	68.2	66.4	59.1	66.3	64.8	65.8	66.3	64.6

Table 2. *Predictive performance on 14 gene-disease associations using network induced by the BIOGPS MDK and RLK kernels. We report the AUC-ROC (%) each kernel with (B) and without (A) using link enrichment.*

D	A	A1	A2	A3	A4	A5	B	B1	B2	B3	B4	B5
0	60.4	65.2	63.6	64.7	65.3	64.6	61.1	63.0	62.2	63.0	63.3	62.5
1	53.0	67.5	64.2	66.8	66.9	65.1	54.4	63.7	59.7	59.8	63.8	61.0
2	50.4	62.7	52.8	61.8	62.3	57.1	50.4	57.4	56.7	56.9	58.6	56.1
3	60.2	74.0	72.4	72.8	74.3	74.9	61.9	72.0	68.2	69.6	71.7	69.9
4	54.8	60.8	61.1	61.4	61.5	61.9	54.8	61.2	60.2	61.9	61.5	61.3
5	62.0	70.6	67.6	70.8	69.5	66.1	61.3	70.0	67.0	69.3	69.5	67.6
6	66.0	73.4	71.7	72.5	72.9	73.2	69.8	73.7	73.3	73.7	74.1	73.4
7	71.4	76.9	73.9	75.3	76.0	74.0	68.7	75.0	73.3	74.4	74.2	72.8
8	59.3	64.2	62.1	63.6	63.3	62.4	62.4	64.4	63.7	65.0	64.7	64.3
9	69.6	75.9	74.4	76.1	76.2	73.9	68.4	72.8	70.2	73.5	71.8	70.5
10	56.0	61.4	58.1	61.7	61.9	60.0	60.6	63.5	63.1	63.5	63.6	62.8
11	65.4	74.2	72.7	73.6	74.2	74.0	64.5	76.2	73.4	74.3	74.6	74.3
12	57.3	67.2	60.5	67.3	67.7	63.5	56.4	63.3	61.7	61.7	63.3	60.5
13	55.5	63.1	60.0	62.3	63.8	63.2	54.9	62.0	61.8	62.0	62.4	61.1
14	60.1	68.4	65.4	67.9	68.3	66.7	60.7	67.0	65.3	66.3	66.9	65.6

Table 3. *Predictive performance on 14 gene-disease associations using network induced by the Biogridphys using LEDK and MEDK kernels. We report the AUC-ROC (%) each kernel with (B) and without (A) using link enrichment.*

D	A	A1	A2	A3	A4	A5	B	B1	B2	B3	B4	B5
0	76.4	79.2	77.8	77.8	79.6	78.3	73.2	79.7	75.0	73.9	79.5	74.9
1	60.5	66.4	61.6	60.8	67.3	63.4	52.3	63.3	55.5	53.0	61.3	53.8
2	62.2	77.2	67.7	67.4	77.2	69.2	49.1	65.2	53.7	51.8	70.0	54.2
3	69.2	79.7	75.4	75.0	79.1	76.3	63.5	77.5	73.9	71.9	77.9	72.7
4	59.2	66.6	63.3	62.1	67.5	62.7	50.2	59.5	56.2	53.4	58.7	55.0
5	63.1	69.7	66.7	66.7	70.1	67.1	54.4	62.9	60.3	58.7	63.0	59.0
6	60.1	67.2	62.3	61.8	72.2	61.8	53.2	64.1	60.3	59.1	67.8	59.1
7	70.6	75.1	71.0	71.1	75.7	71.8	62.9	73.6	68.0	67.4	74.5	67.6
8	69.1	72.1	70.5	70.5	72.3	73.7	61.3	69.2	63.6	62.1	69.0	64.9
9	61.3	70.4	65.6	66.7	70.4	68.1	57.3	67.4	60.8	60.3	68.6	60.3
10	58.9	64.0	61.4	60.6	64.1	62.1	56.2	61.5	59.3	58.4	61.4	59.6
11	61.0	68.3	70.8	66.3	69.5	67.4	59.6	68.6	67.6	67.1	69.4	66.7
12	55.4	66.3	64.7	57.3	69.1	61.7	57.6	71.5	67.2	66.2	71.9	68.3
13	57.4	68.7	61.4	60.9	72.4	64.3	53.2	64.7	60.0	57.8	64.5	58.9
14	63.2	70.8	67.2	66.1	71.9	67.7	57.4	67.8	63.0	61.5	68.4	62.5

Table 4. *Predictive performance on 14 gene-disease associations using network induced by the Biogridphys using MDK and RLK kernels. We report the AUC-ROC (%) each kernel with (B) and without (A) using link enrichment.*

D	A	A1	A2	A3	A4	A5	B	B1	B2	B3	B4	B5
0	66.4	75.6	69.9	72.1	79.2	73.5	76.6	80.0	78.2	78.1	80.2	78.7
1	54.4	63.6	57.5	57.8	65.9	58.7	59.3	66.5	61.8	59.5	65.9	62.8
2	60.0	74.0	60.6	60.3	74.0	65.5	64.4	76.3	68.7	68.4	76.3	71.4
3	60.2	73.3	65.1	67.3	71.8	67.3	70.1	79.5	76.9	75.8	79.7	76.7
4	48.6	61.9	56.5	55.4	62.7	57.4	58.7	66.0	62.6	60.9	64.6	61.1
5	61.7	68.8	65.2	64.5	68.8	65.2	63.2	69.5	67.1	67.1	70.1	67.3
6	56.4	65.5	58.5	58.8	68.7	60.3	61.3	66.8	63.1	62.3	71.1	62.5
7	66.8	74.0	73.1	74.0	74.6	72.5	72.3	75.3	72.3	72.3	75.4	72.7
8	74.0	78.5	75.1	75.6	79.1	75.1	70.4	73.0	71.6	71.7	72.6	74.8
9	54.4	66.9	64.1	61.3	68.2	58.7	62.3	71.0	66.5	67.3	70.8	68.3
10	58.4	64.5	60.0	60.5	63.9	61.4	59.1	62.9	61.0	60.3	63.2	61.8
11	55.9	66.9	56.9	65.4	66.7	64.4	60.8	67.2	70.1	66.1	68.5	67.1
12	54.8	66.2	64.4	58.7	69.4	63.5	55.2	65.5	64.1	57.0	68.1	60.9
13	55.1	66.6	59.7	57.5	67.6	62.6	56.4	67.5	61.7	60.7	68.7	64.1
14	59.1	69.0	63.3	63.5	70.0	64.7	63.6	70.5	67.6	66.3	71.1	67.9