Additional Data

Table AD1: Best performing models on the partition 2 test dataset for the CpgM representation of methylation data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
RF	varSelRF, SC	0.49, 0.49	0.68	82.4
NB	varSelRF	0.50	0.67	82.4
Linear SVM	varSelRF	0.49	0.74	82.4
KNN	SC	0.49	0.55	82.4
GL	SC	0.49	0.72	82.4
BEMKL	SC	0.49	0.74	82.4

Table AD2: Best performing models on the the partition 2 test dataset for RNASeq data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
RF	varSelRF	0.67	0.62	88.2
Linear SVM	varSelRF	0.50	0.58	82.4
KNN	varSelRF	0.50	0.65	82.4
GL	varSelRF	0.56	0.68	84.3
BEMKL	varSelRF	0.50	0.74	82.4

Table AD3: Best performing models on the partition 2 test dataset built by integrating features from RNASeq and CpgM representation of methylation data**.**

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF, SC	0.52, 0.50	0.73, 0.62	82.4, 82.4
RF	varSelRF	0.49	0.68	82.4
NB	varSelRF, SC	0.52, 0.52	0.59, 0.57	82.4, 82.4
Linear SVM	varSelRF	0.50	0.58	82.4
KNN	varSelRF, SC	0.56, 0.56	0.62, 0.66	84.3, 84.3
GL	varSelRF, SC	0.44, 0.44	0.74, 0.75	80.4, 80.4
BEMKL	varSelRF, SC	0.44, 0.44	0.80, 0.75	80.4, 80.4

Table AD4 : Features extracted between early and late stages of PRCC using shrunken centroids for CpgM representation on the partition 2 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg00714725	0.33	Island
2	cg04787024	0.32	Island
3	cg24595510	0.33	Island
4	cg11940285	0.31	Island
5	cg17820365	0.24	Island
6	cg02259324	0.32	Island
7	cg00705280	0.27	Island
8	cg14038391	0.24	Island
9	cg14072515	0.28	Island
10	cg21615583	0.26	Island
11	cg07211212	0.24	N_Shore
12	cg10278915	0.39	OpenSea
13	cg13699355	0.25	Island
14	cg14348741	0.26	Island
15	cg03980541	0.21	Island
16	cg21790626	0.27	Island
17	cg21361094	0.28	Island
18	cg16620382	0.38	Island
19	cg10648670	0.24	S_Shore
20	cg27452922	0.34	OpenSea
21	cg07352345	0.27	Island
22	cg05482942	0.26	Island

23	cg09385093	0.24	Island
24	cg26029345	0.36	Island
25	cg04132199	0.29	Island
26	cg20935165	0.26	Island
27	cg16703956	0.28	Island
28	cg15790037	0.18	Island
29	cg02609127	0.21	Island
30	cg16802151	0.22	Island
31	cg08566455	0.34	Island
32	cg03053875	0.2	Island
33	cg07976064	0.33	Island
34	cg20443254	0.3	Island
35	cg08934846	0.25	Island
36	cg18401367	0.32	Island
37	cg09165441	0.29	Island
38	cg10979436	0.24	S_Shore
39	cg06083330	0.28	Island
40	cg19736128	0.25	Island
41	cg16404371	0.22	Island
42	cg11267630	0.33	S_Shore
43	cg09659227	0.24	Island
44	cg13692446	0.25	Island
45	cg18130044	0.22	N_Shore
46	cg21158087	0.26	Island
47	cg18862481	0.33	Island
48	cg24722073	0.2	N_Shore

49	cg07921384	0.24	Island
50	cg22167515	0.25	Island
51	cg16489610	0.26	OpenSea
52	cg00986824	0.2	Island
53	cg24570303	0.27	S_Shore
54	cg18322569	0.35	Island
55	cg14606256	0.27	S_Shore
56	cg13943217	0.17	Island
57	cg24659054	0.21	Island
58	cg14207654	0.31	Island
59	cg15415452	0.19	Island
60	cg27363327	0.37	Island
61	cg24945701	0.25	Island
62	cg20370678	0.31	Island
63	cg20172627	0.25	Island
64	cg14502484	0.3	Island
65	cg09601912	0.26	N_Shore
66	cg00215432	0.3	Island
67	cg27627209	0.25	OpenSea
68	cg15553598	0.25	Island
69	cg20600210	0.16	Island
70	cg12691866	0.21	S_Shore
71	cg14287512	0.23	N_Shore
72	cg04203238	0.29	Island
73	cg03774463	0.27	S_Shore
74	cg13126530	0.21	Island

75	cg03383508	0.22	N_Shore
76	cg13132370	0.26	N_Shore
77	cg16082877	0.23	Island
78	cg22759823	0.17	Island
79	cg14996220	0.25	N_Shore
80	cg18623980	0.3	Island
81	cg01447112	0.23	Island
82	cg25444386	0.22	N_Shore
83	cg03964958	0.25	Island
84	cg17101450	0.31	S_Shore
85	cg20147819	0.24	Island
86	cg04217952	0.24	OpenSea
87	cg08724310	0.27	N_Shore
88	cg21653132	0.21	Island
89	cg17403609	0.28	Island
90	cg13340126	0.27	Island
91	cg16886987	0.26	Island
92	cg04521510	0.28	S_Shore
93	cg03011535	0.23	Island
94	cg23180938	0.23	Island
95	cg08516516	0.18	Island
96	cg10426464	0.24	Island
97	cg04885832	0.29	Island
98	cg18250846	0.25	Island
99	cg17444839	0.32	Island
100	cg13482308	0.22	Island

101	cg09130077	0.28	Island
102	cg11755107	0.27	Island
103	cg15929797	0.34	Island
104	cg01407244	0.3	S_Shore
105	cg22795586	0.31	N_Shore
106	cg22306928	0.25	Island
107	cg24848035	0.22	Island
108	cg19107469	0.2	Island
109	cg06992285	0.27	Island
110	cg12435415	0.24	N_Shore
111	cg26559315	0.28	Island
112	cg07788369	0.26	OpenSea
113	cg10903903	0.3	Island
114	cg10397440	0.19	Island
115	cg13930892	0.27	Island
116	cg13879483	0.32	Island
117	cg05809668	0.25	Island
118	cg20435725	0.21	N_Shore
119	cg25879102	0.23	OpenSea
120	cg12668399	0.26	Island
121	cg14736058	0.26	Island
122	cg25143990	0.18	N_Shore
123	cg06228828	-0.28	N_Shelf
124	cg00017221	0.21	Island
125	cg18724565	0.16	Island
126	cg19691778	0.19	Island

127	cg22984571	0.27	Island
128	cg16366843	0.17	Island
129	cg07402669	0.2	Island
130	cg17968795	0.3	Island
131	cg11561737	0.19	Island
132	cg03276408	0.21	Island
133	cg13180678	0.27	Island
134	cg03679755	0.27	Island
135	cg12091642	0.24	Island
136	cg09024126	0.24	Island
137	cg10249375	0.19	Island
138	cg01556502	0.22	Island
139	cg19497031	0.23	Island
140	cg06822689	0.29	Island
141	cg00699945	0.14	Island
142	cg01603290	0.28	Island
143	cg26212328	0.27	S_Shore
144	cg11855615	0.27	S_Shelf
145	cg09164580	0.21	Island
146	cg13445796	0.23	Island
147	cg26477573	0.25	Island
148	cg07990749	0.27	Island
149	cg19504702	0.19	Island
150	cg19871940	0.25	N_Shore
151	cg19937061	0.2	Island
152	cg17172980	0.25	Island

153	cg19206146	0.32	OpenSea
154	cg23418339	0.2	Island
155	cg04407470	0.23	Island
156	cg12467264	0.25	N_Shore
157	cg01009664	0.25	Island
158	cg10940462	0.28	Island
159	cg17929687	0.23	Island
160	cg18156204	0.22	Island
161	cg04472725	0.2	Island
162	cg11036833	0.21	Island
163	cg22639293	0.21	Island
164	cg04932340	0.16	Island
165	cg08832906	0.24	Island
166	cg21784383	0.29	Island
167	cg15674193	0.29	Island
168	cg06962944	0.28	Island
169	cg10511249	0.22	Island

Table AD5 : Features extracted between early and late stages of PRCC using varSelRF for CpgM representation on the partition 2 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg03964958	0.25	Island
2	cg17820365	0.24	Island
3	cg09659227	0.24	Island
4	cg07976064	0.33	Island
5	cg12590600	0.16	Island
6	cg01556502	0.22	Island
7	cg18862481	0.33	Island
8	cg06779449	0.23	Island
9	cg24595510	0.33	Island
10	cg24722073	0.2	Island
11	cg04787024	0.32	N_Shore
12	cg19107469	0.2	OpenSea
13	cg11267630	0.33	Island
14	cg16024318	0.19	Island
15	cg11940285	0.31	Island
16	cg26029345	0.36	Island
17	cg01246835	0.11	Island
18	cg08934846	0.25	Island
19	cg08793877	0.19	S_Shore
20	cg19691778	0.19	OpenSea
21	cg05488160	0.19	Island
22	cg09164580	0.21	Island
23	cg15834072	0.24	Island

24	cg14287512	0.23	Island
25	cg12346592	0.24	Island
26	cg06263495	0.2	Island

Table AD6: Best performing models on the partition 3 test dataset for the CpgM representation of methylation data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF	0.78	0.94	91.8
RF	varSelRF	0.78	0.89	91.8
Linear SVM	varSelRF, SC	0.76, 0.76	0.93, 0.97	91.8, 91.8
KNN	varSelRF, SC	0.82, 0.88	0.92, 0.93	93.9, 95.9
GL	varSelRF	0.79	0.95	91.8
BEMKL	SC	0.49	0.96	91.8

Table AD7: Best performing models on the partition 3 test dataset for RNASeq data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF	0.77	0.94	89.8
RF	varSelRF	0.72	0.89	89.8
NB	varSelRF	0.77	0.95	89.8
Linear SVM	varSelRF	0.70	0.93	89.8
BEMKL	varSelRF	0.67	0.87	85.7

Table AD8: Best performing models on the partition 3 test dataset built by integrating features from RNASeq and CpgM representation of methylation data**.**

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF, SC	0.78, 0.78	0.95, 0.83	89.8, 89.8
RF	varSelRF, SC	0.96, 0.93	0.93, 0.96	93.9, 91.8
NB	varSelRF, SC	0.77, 0.77	0.69, 0.69	89.8, 89.8
Linear SVM	varSelRF	0.79	0.92	91.8
KNN	varSelRF	0.72	0.88, 0.83	89.8, 87.8

GL	varSelRF, SC	0.90, 0.90	0.98, 0.98	95.9, 95.9
BEMKL	varSelRF, SC	0.81, 0.81	0.96, 0.94	91.8, 91.8

Table AD9 : Features extracted between early and late stages of PRCC using Shrunken centroids for CpgM representation on the partition 3 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg00986824	0.2	Island
2	cg24595510	0.33	Island
3	cg15929797	0.34	Island
4	cg17820365	0.24	Island
5	cg00714725	0.33	Island
6	cg19937061	0.2	Island
7	cg02259324	0.32	Island
8	cg11940285	0.31	Island
9	cg14072515	0.28	Island
10	cg02316216	0.25	OpenSea
11	cg10397440	0.19	Island
12	cg19859290	0.27	Island
13	cg05482942	0.26	Island
14	cg16620382	0.38	Island
15	cg04787024	0.32	Island
16	cg21790626	0.27	Island
17	cg20443254	0.3	Island
18	cg06083330	0.28	Island
19	cg10249375	0.19	Island
20	cg13699355	0.25	Island

21	cg18130044	0.22	N_Shore
22	cg07211212	0.24	N_Shore
23	cg23180938	0.23	Island
24	cg18623980	0.3	Island
25	cg15415452	0.19	Island
26	cg11267630	0.33	S_Shore
27	cg16802151	0.22	Island
28	cg10278915	0.39	OpenSea
29	cg21361094	0.28	Island
30	cg20600210	0.16	Island
31	cg24570303	0.27	S_Shore
32	cg00017221	0.21	Island
33	cg10979436	0.24	S_Shore
34	cg24722073	0.2	N_Shore
35	cg15790037	0.18	Island
36	cg13126530	0.21	Island
37	cg03053875	0.2	Island
38	cg16082877	0.23	Island
39	cg13692446	0.25	Island
40	cg09385093	0.24	Island
41	cg04203238	0.29	Island
42	cg16703956	0.28	Island
43	cg22795586	0.31	N_Shore
44	cg01009664	0.25	Island
45	cg20935165	0.26	Island
46	cg02700891	0.21	Island

47	cg00018128	0.25	S_Shore
48	cg04932340	0.16	Island
49	cg06992285	0.27	Island
50	cg27363327	0.37	Island
51	cg07402669	0.2	Island
52	cg18322569	0.35	Island
53	cg12836959	0.23	OpenSea
54	cg05298922	0.2	Island
55	cg07352345	0.27	Island
56	cg12691866	0.21	S_Shore
57	cg24659054	0.21	Island
58	cg18862481	0.33	Island
59	cg04132199	0.29	Island
60	cg14038391	0.24	Island
61	cg14060496	0.2	Island
62	cg22167515	0.25	Island
63	cg10903903	0.3	Island
64	cg26029345	0.36	Island
65	cg12467264	0.25	N_Shore
66	cg20114732	0.25	N_Shore
67	cg02609127	0.21	Island
68	cg23144681	0.17	S_Shore
69	cg18229521	0.22	Island
70	cg06122871	0.3	S_Shelf
71	cg16304215	0.2	S_Shore
72	cg06822689	0.29	Island

	CpGs	Mean Beta Difference	Location w.r.t Islands
73	cg24625136	0.17	Island
74	cg18482164	0.18	Island
75	cg14502484	0.3	Island
76	cg14606256	0.27	S_Shore
77	cg11741189	0.31	S_Shore
78	cg14603098	0.23	Island
79	cg02970836	0.3	N_Shore
80	cg15058464	0.2	Island
81	cg21615583	0.26	Island
82	cg00705280	0.27	Island
83	cg01447112	0.23	Island
84	cg24324815	0.27	Island

Table AD10 : Features extracted between early and late stages of PRCC using varSelRF for CpgM representation on the partition 3 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg26847748	0.15	Island
2	cg09164580	0.21	Island
3	cg06962177	0.29	Island
4	cg09659227	0.24	Island
5	cg14060496	0.2	Island
6	cg12590600	0.16	Island
7	cg00986824	0.2	Island
8	cg11626496	0.19	Island
9	cg08305436	0.25	Island
10	cg24595510	0.33	OpenSea

11	cg23893898	0.23	Island
12	cg08793877	0.19	Island
13	cg14634534	0.24	Island
14	cg13050058	0.1	Island
15	cg16366843	0.17	Island
16	cg25583491	0.14	Island
17	cg18749015	0.23	Island
18	cg20600210	0.16	Island
19	cg11379081	0.24	Island
20	cg19870698	0.16	Island
21	cg15778437	0.19	N_Shore

Table AD11: Best performing models on the partition 4 test dataset for the CpgM representation of methylation data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
RF	varSelRF, SC	0.71, 0.69	0.82, 0.71	91.8
NB	varSelRF, SC	0.66, 0.77	0.80, 0.72	90, 84
Linear SVM	SC	0.67	0.79	91.8, 91.8
BEMKL	varSelRF, SC	0.75, 0.77	0.73, 0.77	91.8

Table AD12: Best performing models on the the partition 4 test dataset for RNASeq data.

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF	0.75	0.73	90
RF	varSelRF	0.63	0.83	86
NB	varSelRF	0.69	0.72	88
Linear SVM	varSelRF	0.75	0.68	90
BEMKL	varSelRF	0.63	0.81	86

Table AD13: Best performing models on the partition 4 test dataset built by integrating features from RNASeq and CpgM representation of methylation data**.**

Classifier	Feature Set	MCC	PR AUC	Accuracy (%)
SC	varSelRF, SC	0.75, 0.81	0.73, 0.77	90, 92
RF	varSelRF, SC	0.63, 0.71	0.84, 0.73	86, 88
NB	varSelRF, SC	0.69, 0.73	0.69, 0.73	88, 88
Linear SVM	varSelRF	0.68	0.73	88
KNN	SC	0.77	0.79	90
GL	varSelRF, SC	0.68, 0.68	0.78, 0.78	88, 88
BEMKL	varSelRF, SC	0.79, 0.75	0.80, 0.74	92, 90

Table AD14 : Features extracted between early and late stages of PRCC using Shrunken Centroids for CpgM representation on the partition 4 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg24595510	0.33	Island
2	cg00714725	0.33	Island
3	cg02316216	0.25	OpenSea
4	cg02609127	0.21	Island
5	cg19859290	0.27	Island
6	cg21653132	0.21	Island
7	cg14072515	0.28	Island
8	cg11940285	0.31	Island
9	cg20147819	0.24	Island
10	cg02259324	0.32	Island
11	cg16489610	0.26	OpenSea
12	cg20600210	0.16	Island

13	cg20443254	0.3	Island
14	cg01447112	0.23	Island
15	cg27627209	0.25	OpenSea
16	cg23180938	0.23	Island
17	cg24570303	0.27	S_Shore
18	cg03276408	0.21	Island
19	cg21790626	0.27	Island
20	cg03053875	0.2	Island
21	cg09385093	0.24	Island
22	cg23244289	0.18	Island
23	cg04787024	0.32	Island
24	cg26440289	0.25	Island
25	cg14207654	0.31	Island
26	cg03980541	0.21	Island
27	cg24659054	0.21	Island
28	cg05482942	0.26	Island
29	cg07921384	0.24	Island
30	cg11956953	0.19	Island
31	cg26029345	0.36	Island
32	cg17820365	0.24	Island
33	cg19497031	0.23	Island
34	cg03413097	0.21	Island
35	cg19619405	0.24	Island
36	cg06530338	0.26	Island
37	cg11536474	0.23	Island
38	cg27430662	0.18	S_Shore

39	cg02700891	0.21	Island
40	cg21762523	0.23	Island
41	cg08042316	0.24	Island
42	cg07352345	0.27	Island
43	cg14038391	0.24	Island
44	cg15929797	0.34	Island
45	cg06829686	0.27	Island
46	cg27424244	0.2	Island
47	cg00217080	-0.23	Island
48	cg23274680	0.11	Island
49	cg17101450	0.31	S_Shore
50	cg10426464	0.24	Island
51	cg24939845	0.17	Island
52	cg06122871	0.3	S_Shelf
53	cg13848707	0.25	S_Shore
54	cg14603098	0.23	Island
55	cg13482308	0.22	Island
56	cg16366843	0.17	Island
57	cg10511249	0.22	Island
58	cg08750951	0.26	Island
59	cg01009664	0.25	Island
60	cg26158950	0.18	S_Shore
61	cg23060646	0.29	Island
62	cg10979436	0.24	S_Shore
63	cg22665099	0.21	Island
64	cg02241397	0.21	Island

65	cg00602245	-0.19	N_Shelf
66	cg16703956	0.28	Island
67	cg04217952	0.24	OpenSea
68	cg14606256	0.27	S_Shore
69	cg26477573	0.25	Island
70	cg04132199	0.29	Island
71	cg10834205	0.24	N_Shore
72	cg14060496	0.2	Island
73	cg14736058	0.26	Island
74	cg08516516	0.18	Island
75	cg10249375	0.19	Island
76	cg15553598	0.25	Island
77	cg04407470	0.23	Island
78	cg06992285	0.27	Island
79	cg07976064	0.33	Island
80	cg02732804	0.15	Island
81	cg14996220	0.25	N_Shore
82	cg07402669	0.2	Island
83	cg07642043	0.18	Island
84	cg16620382	0.38	Island
85	cg08566455	0.34	Island
86	cg17160382	0.18	OpenSea
87	cg02237470	0.16	Island
88	cg18862481	0.33	Island
89	cg04932340	0.16	Island
90	cg13564825	0.22	Island

91	cg26415547	0.18	Island
92	cg10023272	0.16	Island
93	cg19206146	0.32	OpenSea
94	cg14287512	0.23	N_Shore
95	cg18409528	0.23	Island
96	cg11267630	0.33	S_Shore
97	cg06947913	0.23	Island
98	cg13132370	0.26	N_Shore
99	cg08253651	0.34	Island
100	cg12974388	0.25	Island
101	cg09024126	0.24	Island
102	cg26492446	0.25	Island
103	cg09659227	0.24	Island
104	cg00803453	0.22	Island
105	cg21361094	0.28	Island
106	cg18623980	0.3	Island
107	cg24080793	0.18	OpenSea
108	cg18322569	0.35	Island
109	cg25464921	0.21	OpenSea
110	cg21784383	0.29	Island
111	cg14348741	0.26	Island
112	cg18486102	0.19	Island
113	cg15572779	0.16	Island
114	cg11561737	0.19	Island
115	cg02970836	0.3	N_Shore
116	cg22167515	0.25	Island

117	cg00699945	0.14	Island
118	cg12816961	0.22	Island
119	cg03257575	0.28	Island
120	cg21615583	0.26	Island
121	cg16802151	0.22	Island
122	cg06083330	0.28	Island
123	cg04885832	0.29	Island
124	cg04807470	0.26	Island
125	cg24848035	0.22	Island
126	cg16082877	0.23	Island
127	cg22524657	0.32	Island
128	cg10717691	0.26	OpenSea
129	cg01498231	0.14	Island
130	cg12467264	0.25	N_Shore
131	cg13879483	0.32	Island
132	cg13692446	0.25	Island
133	cg23460250	0.41	OpenSea
134	cg20610452	0.3	OpenSea
135	cg00018128	0.25	S_Shore
136	cg00705280	0.27	Island
137	cg08724310	0.27	N_Shore
138	cg20311863	0.2	Island
139	cg18724565	0.16	Island
140	cg06779449	0.23	Island
141	cg19777067	0.24	Island
142	cg22795586	0.31	N_Shore

143	cg10278915	0.39	OpenSea
144	cg04521510	0.28	S_Shore
145	cg10648670	0.24	S_Shore
146	cg04640675	0.19	Island
147	cg11036833	0.21	Island
148	cg01020413	0.28	S_Shore
149	cg18482164	0.18	Island
150	cg03224572	0.22	Island
151	cg04293902	0.13	Island
152	cg01407244	0.3	S_Shore
153	cg22855900	0.23	Island
154	cg07770968	0.16	Island
155	cg03113878	0.18	Island
156	cg24903183	0.21	Island
157	cg13943217	0.17	Island
158	cg17929687	0.23	Island
159	cg00960395	0.25	N_Shore
160	cg17403609	0.28	Island
161	cg07143470	0.21	N_Shore
162	cg17246382	0.23	Island
163	cg03679755	0.27	Island
164	cg05809668	0.25	Island
165	cg23318812	0.2	Island
166	cg07990749	0.27	Island
167	cg09165441	0.29	Island
168	cg13930892	0.27	Island

169	cg20707780	0.16	Island
170	cg11755107	0.27	Island
171	cg16073378	0.26	Island
172	cg13126530	0.21	Island
173	cg03755177	0.26	Island
174	cg06341027	0.23	S_Shore
175	cg15790037	0.18	Island
176	cg03383508	0.22	N_Shore
177	cg06060135	0.19	Island
178	cg18179075	0.26	OpenSea
179	cg23418339	0.2	Island
180	cg12500879	0.24	Island
181	cg22984571	0.27	Island
182	cg12296772	0.26	Island
183	cg04203238	0.29	Island
184	cg12374721	0.33	N_Shore
185	cg19370054	0.21	Island
186	cg08473199	0.2	Island
187	cg11071231	0.18	Island
188	cg09601912	0.26	N_Shore
189	cg24722073	0.2	N_Shore
190	cg14502484	0.3	Island
191	cg15576900	0.16	Island
192	cg13401339	0.17	Island
193	cg10498434	0.17	Island
194	cg05014211	0.18	Island

195	cg15205636	0.23	Island
196	cg24390913	0.22	Island
197	cg07113642	0.22	Island
198	cg06767766	0.25	S_Shore
199	cg15878670	0.23	Island
200	cg21461649	0.25	OpenSea
201	cg16400631	0.23	N_Shore
202	cg26942943	0.19	Island
203	cg01786994	0.23	Island
204	cg22286978	0.13	Island
205	cg25947489	0.24	OpenSea
206	cg19729116	0.25	Island
207	cg20935165	0.26	Island
208	cg24520538	0.21	OpenSea
209	cg07406897	0.18	Island
210	cg15572489	0.19	Island
211	cg25315816	0.19	Island
212	cg20512711	0.28	Island
213	cg17278072	0.28	N_Shore
214	cg17968795	0.3	Island
215	cg01003803	0.21	S_Shore
216	cg10397440	0.19	Island
217	cg03476195	0.3	OpenSea
218	cg12435415	0.24	N_Shore
219	cg20183619	0.23	Island
220	cg26315862	0.29	Island

221	cg00735923	0.27	OpenSea
222	cg19736128	0.25	Island
223	cg17443359	0.23	N_Shore
224	cg19937061	0.2	Island
225	cg00498591	0.23	Island
226	cg02892286	0.23	Island
227	cg07326438	0.27	Island
228	cg18229521	0.22	Island
229	cg03011535	0.23	Island
230	cg18257810	0.22	Island
231	cg05298922	0.2	Island
232	cg23816347	0.23	Island
233	cg18582180	0.2	Island
234	cg16358679	0.22	Island
235	cg24292235	0.15	Island
236	cg24106636	0.2	Island
237	cg09451427	0.28	OpenSea
238	cg05447008	0.21	Island
239	cg01664670	0.16	Island
240	cg21158087	0.26	Island
241	cg10643691	0.27	OpenSea
242	cg12091642	0.24	Island
243	cg02644510	0.28	S_Shore
244	cg19414591	0.18	Island
245	cg18786873	0.23	Island
246	cg01303723	0.16	Island

		Mean Beta Difference	Location w.r.t Islands
247	cg08934846	0.25	Island
248	cg23205387	0.16	Island
249	cg08278357	0.21	Island
250	cg18755296	0.15	Island
251	cg03964958	0.25	Island
252	cg15219228	0.33	Island
253	cg27363327	0.37	Island
254	cg06809252	0.3	Island

Table AD15 : Features extracted between early and late stages of PRCC using varSelRF for CpgM representation on the partition 4 training set.

	CpGs	Mean Beta Difference	Location w.r.t Islands
1	cg24595510	0.33	Island
2	cg15986413	0.15	Island
3	cg09473315	0.21	OpenSea
4	cg12346592	0.24	Island
5	cg14060496	0.2	Island
6	cg12590600	0.16	Island
7	cg19107469	0.2	Island
8	cg25583491	0.14	Island
9	cg15572489	0.19	Island
10	cg04965987	0.22	Island
11	cg20311863	0.2	OpenSea
12	cg18081940	0.27	Island
13	cg00602245	-0.19	Island
14	cg07572579	0.16	Island

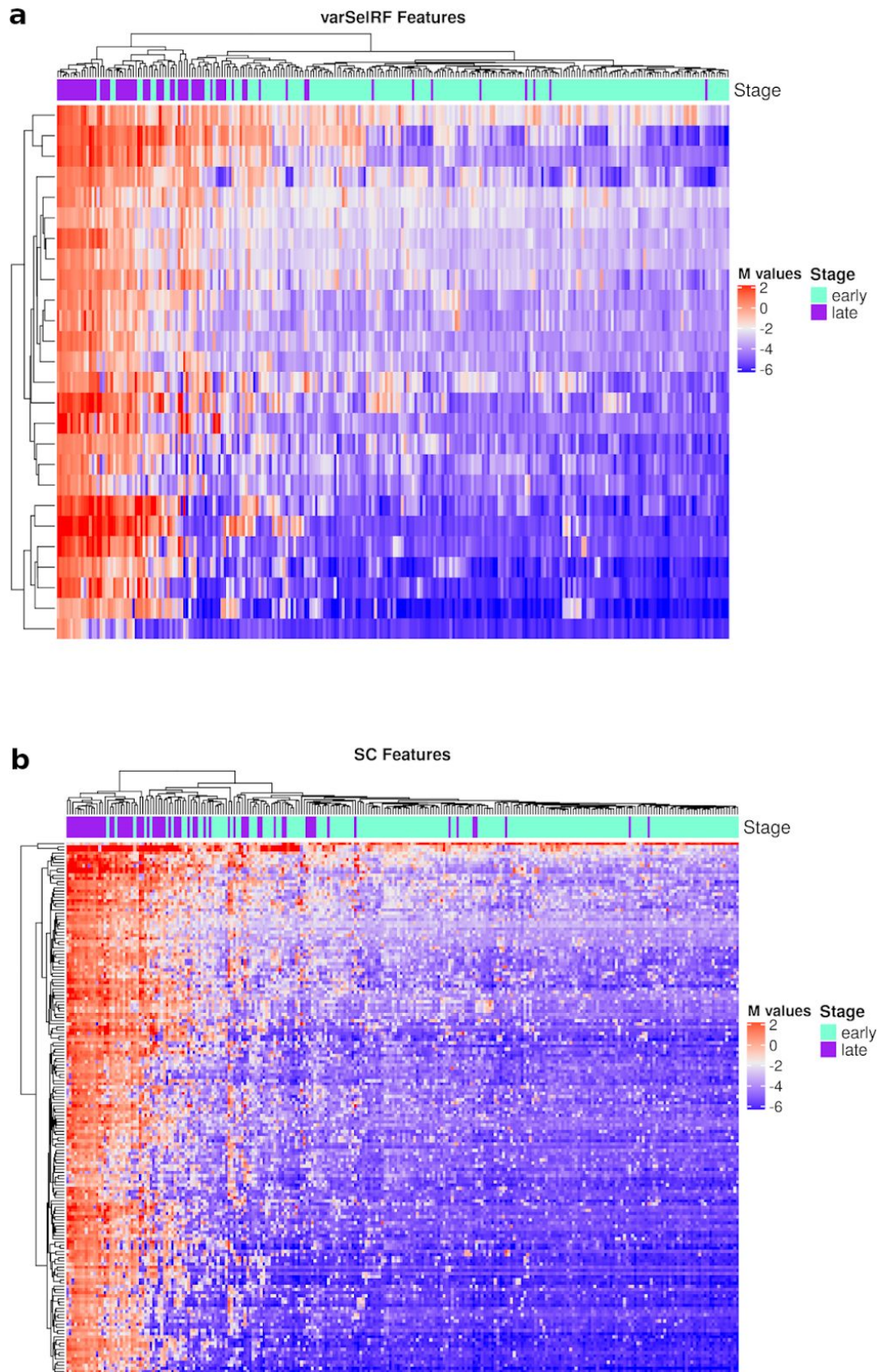| 15	cg18687675	0.21	OpenSea
16	cg03208426	0.1	Island
17	cg14287512	0.23	S_Shore

Fig. AD1: Performance of different models on the partition 2 test data with features extracted from GeneM representation using (a) varSelRF and (b) Shrunken Centroids. The metrics PR AUC, MCC, Accuracy, Sensitivity and Specificity are shown for individual and integrated models based on gene expression (RNA) DNA methylation. For integration of data, concatenation-based approach is used for classifiers KNN, NB, RF, SC, SVM, while MKL-based approaches are used for BEMKL and GL.
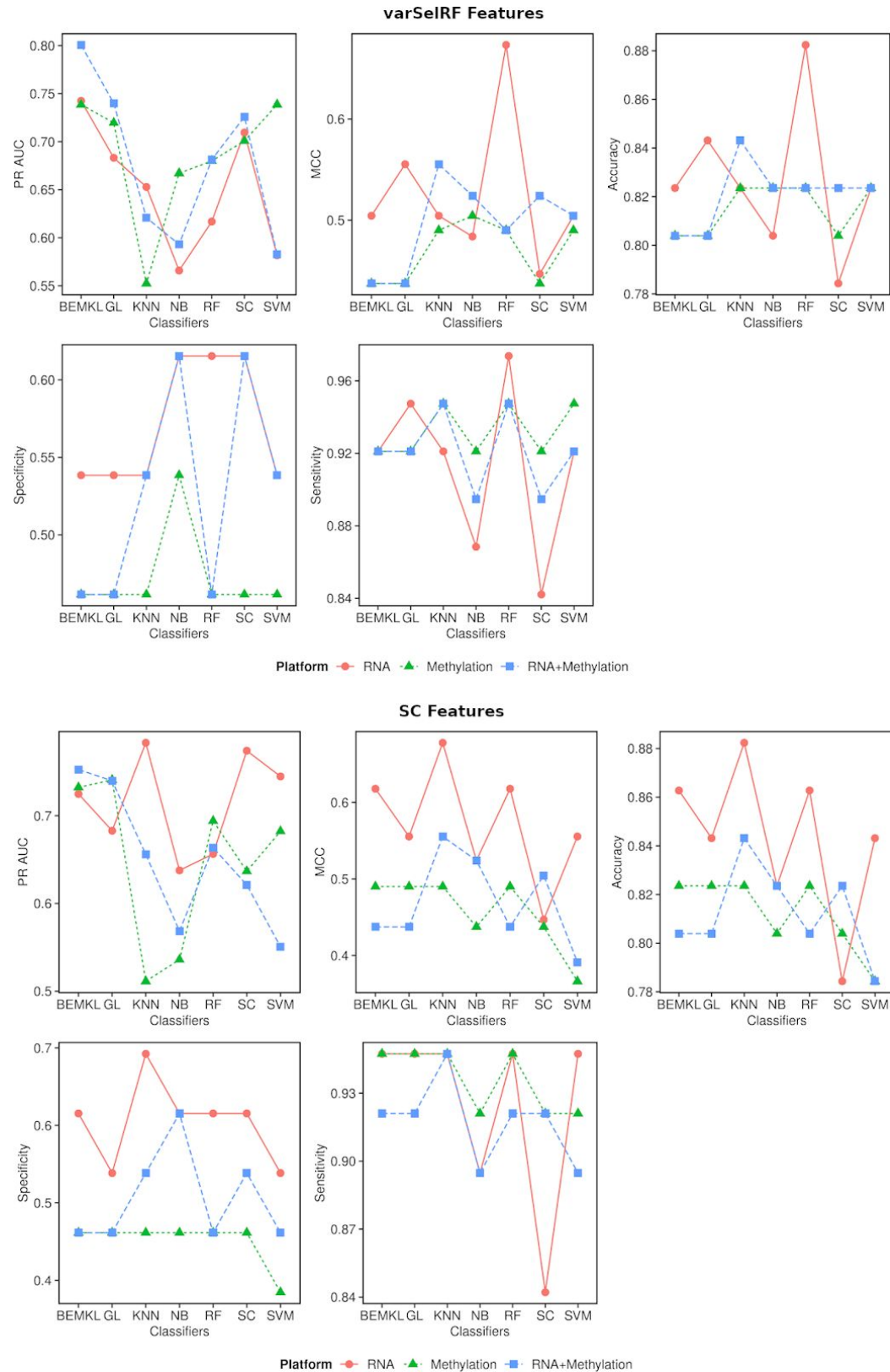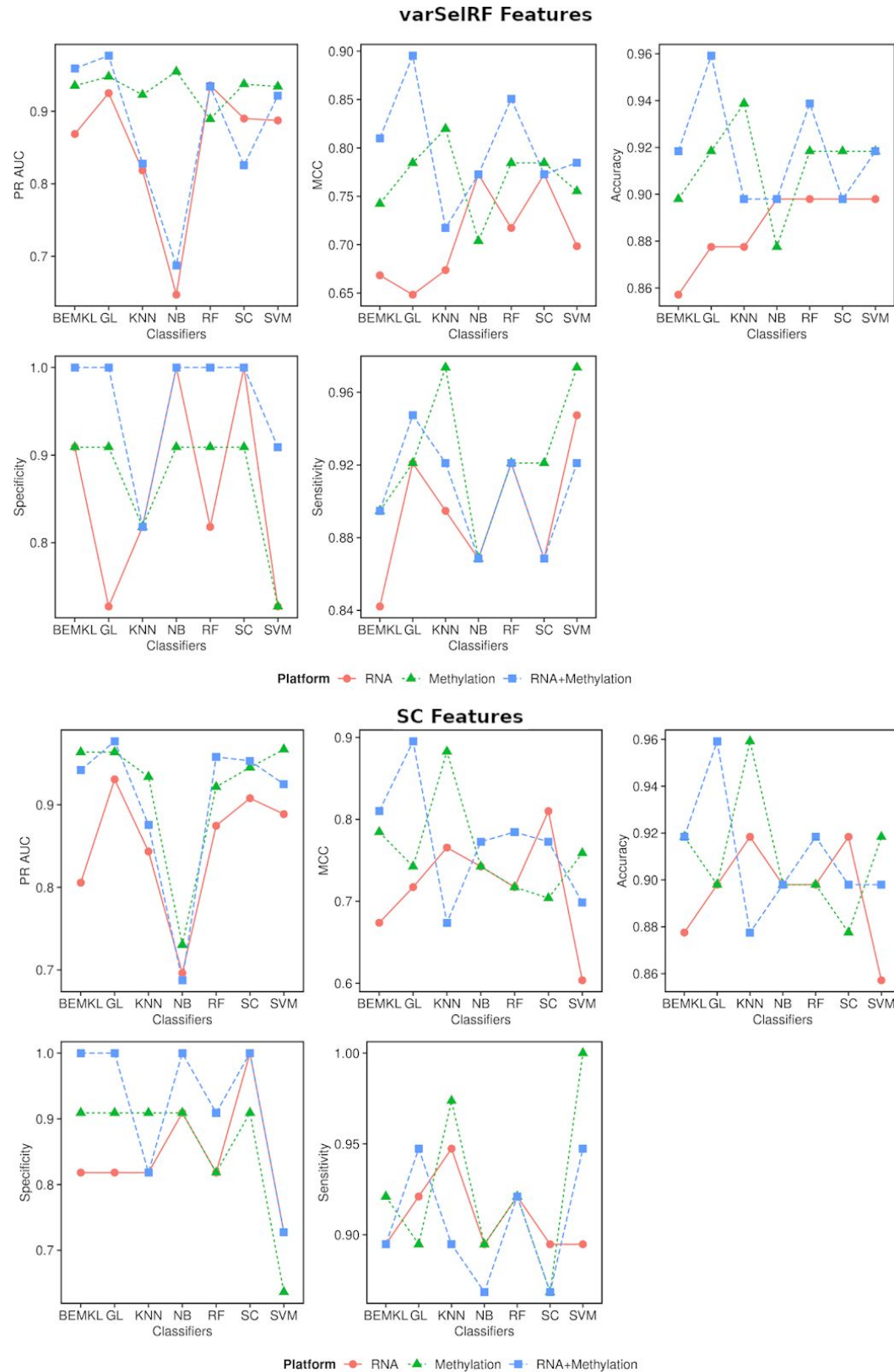
Fig. AD2: Heatmap of CpGs obtained as features between early and late stages of PRCC on partition 2 for CpgM representation using (a) varSelRF and (b) Shrunken Centroids feature selection algorithm.
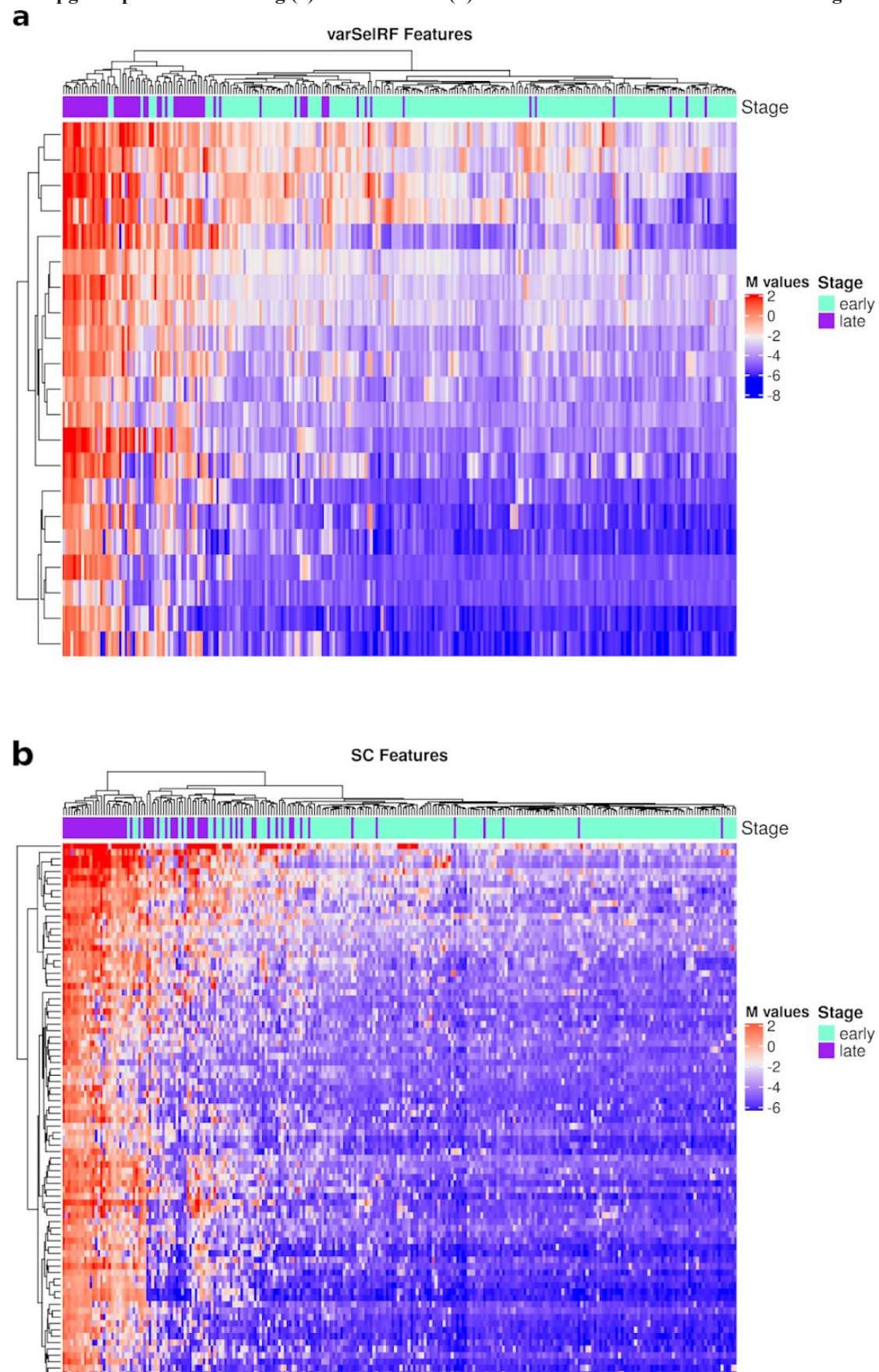
Fig. AD3: Performance of different models on the partition 3 test data with features extracted from GeneM representation using (a) varSelRF and (b) Shrunken Centroids. The metrics PR AUC, MCC, Accuracy, Sensitivity and Specificity are shown for individual and integrated models based on gene expression (RNA) DNA methylation. For integration of data, concatenation-based approach is used for classifiers KNN, NB, RF, SC, SVM, while MKL-based approaches are used for BEMKL and GL.

Fig. AD4: Heatmap of CpGs obtained as features between early and late stages of PRCC on partition 3 for CpgM representation using (a) varSelRF and (b) Shrunken Centroids feature selection algorithm.

Fig. AD5: Performance of different models on the partition 3 test data with features extracted from GeneM representation using (a) varSelRF and (b) Shrunken Centroids. The metrics PR AUC, MCC, Accuracy, Sensitivity and Specificity are shown for individual and integrated models based on gene expression (RNA) DNA methylation. For integration of data, concatenation-based approach is used for classifiers KNN, NB, RF, SC, SVM, while MKL-based approaches are used for BEMKL and GL.
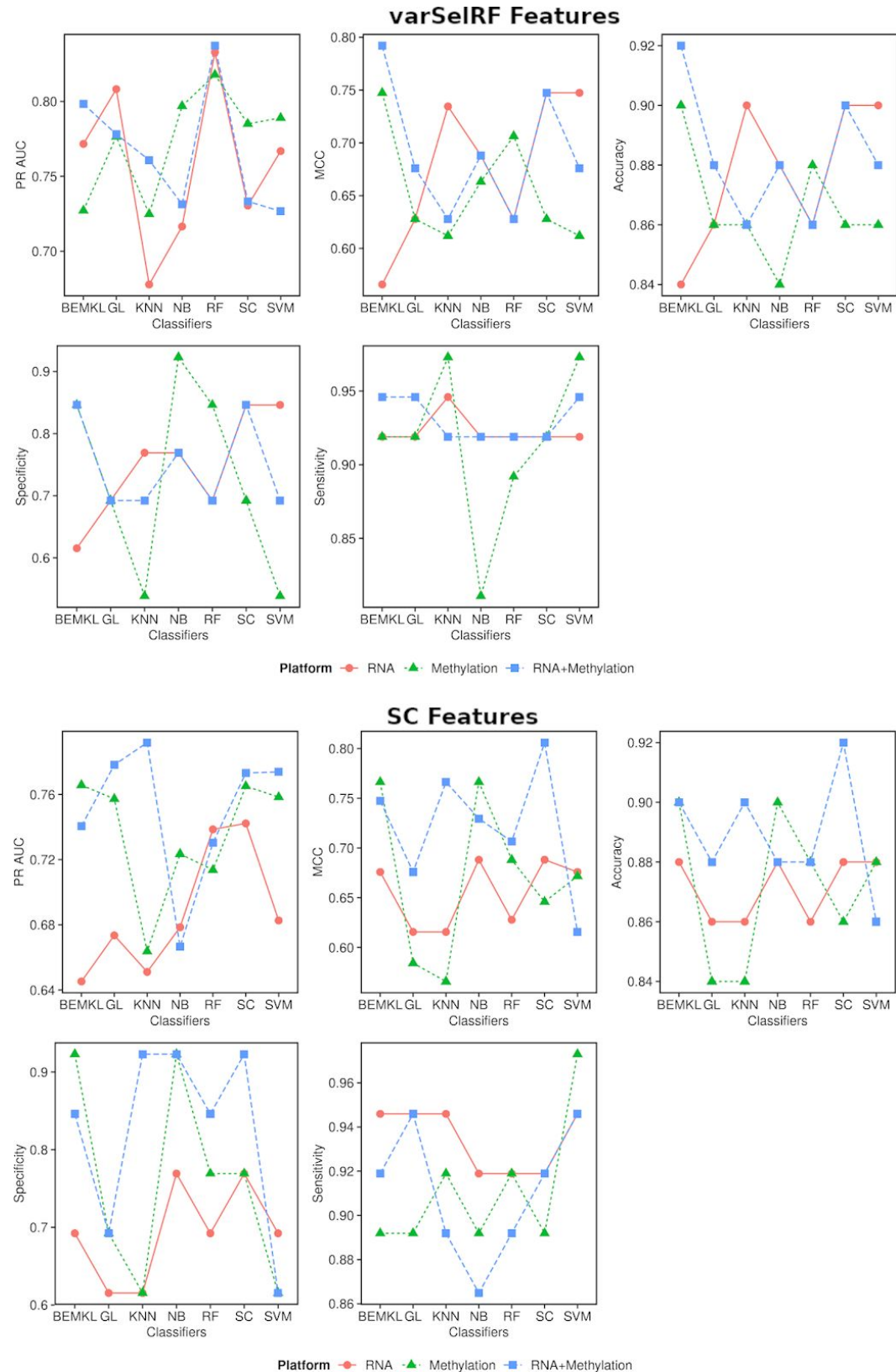
Fig. AD6: Heatmap of CpGs obtained as features between early and late stages of PRCC on partition 3 for CpgM representation using (a) varSelRF and (b) Shrunken Centroids feature selection algorithm.