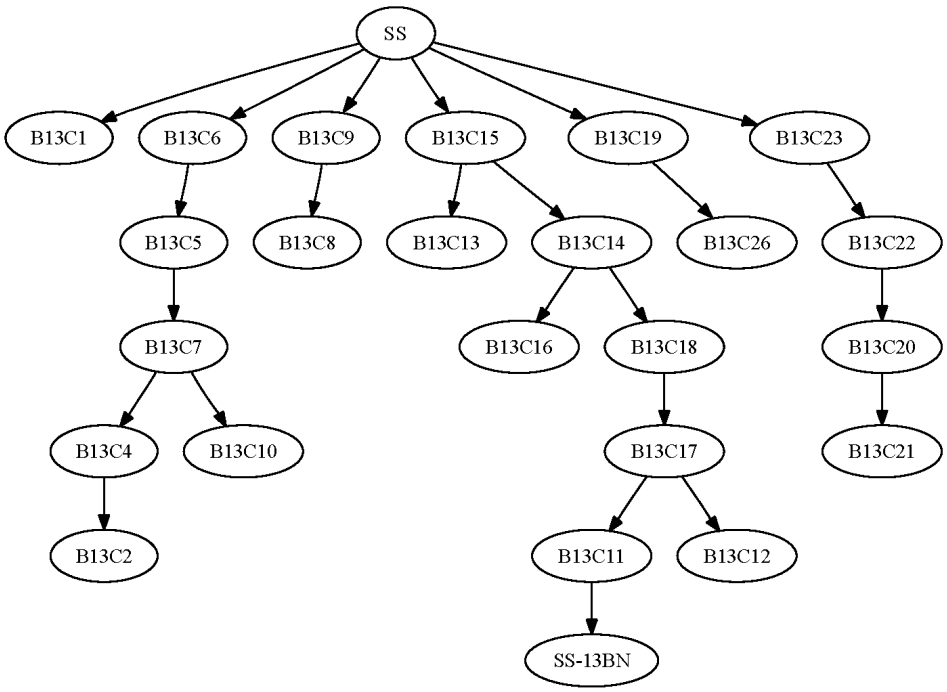
Suppl. figure 1. MST tree for the MAP study in the rat.



Suppl. table 1. Pseudo-code for a Minimum Spanning Tree based on Kruskal's algorithm.

Because each vertex is in exactly one tree, we use a collection of disjoint sets as data structure with the following functions:

make_set(x): create a disjoint set with element x.

find(x): find which set is element x in

union(x,y): replace set containing x and y with their union

Given graph G=(V,E), let T be the MST under construction

1. Sort edges E: (u,v) by cost/weight
2. T = {}
3. For x in V
   make_set(x)
4. For (u,v) in E (increasing order):
   If find(u)≠find(v)
   $T \leftarrow T \bigcup \{(u,v)\}$
   union(u,v)
   end if

   end For

Suppl. table 2A. Mean arterial pressure (MAP) in females. QTL locations highlighted with a black border were identified with the common segment method (Moreno et al. 2007), whereas QTLs highlighted in pink were identified with the sequential method.

marker	D13Rat7	D13Rat60	D13Rat111	D13Rat116	D13Rat20	D13Rat88	D13Rat122	D13Got22	D13Rat31	D13Rat101	D13Rat127	D13Rat178	D13Rat175	D13Rat77	D13Rat151	D13Rat61	D13Got45	D13Got51	D13Rat46	D13Rat97	D13Rat83	D13Rat57	D13Rat92
SS	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C1	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C2	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C4	B	B	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S	7	S	S	S	S
B13C5	S	S	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C6	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C7	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S
B13C8	S	S	S	S	B	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S
B13C9	S	S	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S
B13C10	S	S	S	B	B	B	B	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S
B13C11	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	B	B	B	B	B	S	S	S
B13C12	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S
B13C13	S	S	S	S	S	S	S	S	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S
B13C14	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	S	S	S	S
B13C15	S	S	S	S	S	S	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S
B13C16	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	S	S	S
B13C17	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	B	S	S	S	S
B13C18	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S
B13C26	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S
B13C19	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	S	S	S
B13C20	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B
B13C21	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	S
B13C22	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B
B13C23	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B
SS-13BN	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

vs ctrl	sig	pval	pval*nTest
B13C1	1	0.000162	0.003896
B13C2	0	0.093589	2.246146
B13C4	1	3.81E-05	0.000915
B13C5	1	0.00128	0.03072
B13C6	0	0.38541	9.249848
B13C7	1	0.000495	0.011872
B13C8	0	0.003082	0.073966
B13C9	0	0.018623	0.446962
B13C10	1	0.001819	0.043664
B13C11	1	7.5E-05	0.001801
B13C12	0	0.284472	6.82734
B13C13	0	0.531298	12.75116
B13C14	0	0.607879	14.58909
B13C15	0	0.224085	5.378035
B13C16	0	0.27833	6.679929
B13C17	1	0.00046	0.011041
B13C18	1	0.000606	0.014534
B13C26	1	0.000114	0.002725
B13C19	0	0.205545	4.933086
B13C20	0	0.197381	4.737153
B13C21	0	0.196364	4.712735
B13C22	0	0.368072	8.833728
B13C23	0	0.518482	12.44356
SS-13BN	1	5.93E-10	1.42E-08

str1	str2	sig	pval	pval*nTest
SS	B13C1	1	0.000162	0.003896
B13C4	B13C2	0	0.005428	0.130269
B13C7	B13C4	0	0.736669	17.68005
B13C6	B13C5	1	0.000291	0.00698
SS	B13C6	0	0.38541	9.249848
B13C5	B13C7	0	0.931873	22.36496
B13C9	B13C8	0	0.554923	13.31814
SS	B13C9	0	0.018623	0.446962
B13C7	B13C10	0	0.568458	13.64298
B13C17	B13C11	0	0.246361	5.912655
B13C17	B13C12	0	0.007208	0.172992
B13C15	B13C13	0	0.470223	11.28536
B13C15	B13C14	0	0.07413	1.779118
SS	B13C15	0	0.224085	5.378035
B13C14	B13C16	0	0.091775	2.202612
B13C18	B13C17	0	0.302368	7.256821
B13C14	B13C18	1	4.41E-05	0.001059
B13C19	B13C26	0	0.005454	0.130889
SS	B13C19	0	0.205545	4.933086
B13C22	B13C20	0	0.809791	19.43499
B13C20	B13C21	0	0.784141	18.81939
B13C23	B13C22	0	0.653561	15.68546
SS	B13C23	0	0.518482	12.44356
B13C11	SS-13BN	0	0.343175	8.236204

Black Bordered boxes were identified by the paper
Pink boxes were identified by the sequential method

Suppl. table 2B. Mean arterial pressure (MAP) in males.

marker	D13Rat7	D13Rat60	D13Rat111	D13Rat115	D13Rat20	D13Rat88	D13Rat123	D13Got22	D13Rat91	D13Rat101	D13Rat27	D13Rat178	D13Rat179	D13Rat77	D13Rat151	D13Rat61	D13Got45	D13Got51	D13Rat46	D13Rat197	D13Rat183	D13Rat57	D13Rat192	Sample
SS	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	19
B13C1	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	9
B13C2	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	11
B13C4	B	B	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	14
B13C5	S	S	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	9
B13C6	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	11
B13C7	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	14
B13C8	S	S	S	S	B	B	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	6
B13C9	S	S	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S	S	S	S	S	17
B13C10	S	S	S	B	B	B	B	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	S	14
B13C11	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	B	B	B	B	B	S	S	S	10
B13C12	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S	S	S	16
B13C13	S	S	S	S	S	S	S	S	B	B	B	B	B	S	S	S	S	S	S	S	S	S	S	15
B13C14	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	S	S	S	S	8
B13C15	S	S	S	S	S	S	S	S	S	S	B	B	B	B	S	S	S	S	S	S	S	S	S	14
B13C16	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	S	S	S	5
B13C17	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	B	S	S	S	S	13
B13C18	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	B	B	B	S	S	S	S	15
B13C26	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	13
B13C19	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	S	S	S	11
B13C20	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	B	7
B13C21	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	B	B	S	11
B13C22	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	B	7
B13C23	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	B	B	10
SS-13BN	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	14

strain vs. ctrl	sig	pval	pval*nTest
B13C1	0	0.011506	0.276141
B13C2	1	0.000265	0.00635
B13C4	0	0.15848	3.803525
B13C6	0	0.021739	0.52174
B13C5	1	0.000673	0.016151
B13C7	0	0.004363	0.104717
B13C8	0	0.19221	4.613045
B13C9	0	0.036333	0.871986
B13C10	1	0.000978	0.023478
B13C11	0	0.037812	0.907479
B13C12	0	0.029077	0.697858
B13C13	0	0.444299	10.66318
B13C14	0	0.266792	6.403009
B13C15	0	0.237167	5.692007
B13C16	0	0.178752	4.290055
B13C17	1	7.36E-07	1.77E-05
B13C18	0	0.003568	0.085621
B13C26	0	0.049759	1.194221
B13C19	0	0.800717	19.2172
B13C20	0	0.963332	23.11996
B13C21	0	0.447605	10.74252
B13C22	0	0.110219	2.645245
B13C23	0	0.893027	21.43266
SS-13BN	1	3.41E-12	8.18E-11

str1	str2	sig	pval	pval*nTest
SS	B13C1	0	0.011506	0.276141
B13C4	B13C2	0	0.107113	2.570714
B13C7	B13C4	0	0.477828	11.46787
SS	B13C6	0	0.021739	0.52174
B13C6	B13C5	1	2.68E-05	0.000644
B13C5	B13C7	0	0.101987	2.447683
B13C9	B13C8	0	0.790204	18.96489
SS	B13C9	0	0.036333	0.871986
B13C7	B13C10	0	0.46734	11.21616
B13C17	B13C11	0	0.110674	2.656795
B13C17	B13C12	1	0.000459	0.011018
B13C15	B13C13	0	0.076656	1.839754
B13C15	B13C14	0	0.071722	1.721339
SS	B13C15	0	0.237167	5.692007
B13C14	B13C16	0	0.486079	11.66589
B13C18	B13C17	0	0.045676	1.09623
B13C14	B13C18	0	0.002891	0.069391
B13C19	B13C26	0	0.034245	0.821882
SS	B13C19	0	0.800717	19.2172
B13C22	B13C20	0	0.26267	6.304071
B13C20	B13C21	0	0.575925	13.82221
B13C23	B13C22	0	0.056748	1.361949
SS	B13C23	0	0.893027	21.43266
B13C11	SS-13BN	1	0.001667	0.040005

Suppl. table 2C. Genetic markers for studying MAP (see Moreno et al. 2007 for details).

Marker	Left	Right
D13Rat7	1084269	1084470
D13Rat60	13053809	13053933
D13Rat111	32030140	32.30259
D13Rat115	35719011	35719148
D13Rat20	38329090	38329229
D13Rat88	42627611	42627837
D13Rat123	44872182	44872315
D13Got22	45828609	45828716
D13Rat91	46911976	46912163
D13Rat101	49428398	49428577
D13Rat127	55373162	55373537
D13Rat178	59830974	59831216
D13Rat179	60669452	60669696
D13Rat77	63175275	63175600
D13Rat151	64083141	64083335
D13Rat61	68034721	68034927
D13Got45	69494048	69494326
D13Got51	72638817	72638941
D13Rat46	77336099	77336322
D13Rat197	80109433	80109632
D13Rat183	80966179	80966380
D13Rat57	84280243	84280390
D13Rat192	100133218	100133413

Suppl. table 3. SNP markers for Chromosome 13.

Marker	Left	Right
D13M236	4363272	4363368
D13M218	19636983	19637157
D13M88	38770728	38770896
D13M99	77262943	77263147
D13M126	85806862	85807000
D13M106	93838592	93838725
D13M77	118025687	118025961