

Durrett and Interian Genomic Midpoints
Supplementary Materials 2

HSA	MFU	CAE	CGU
1	1	20+25	5,11,13
2	9+15	14+10	17+20
3	3	15+22	12,18
4	4	27+7	1
5	5	4+23	2
6	6	17+13	3
7	2.2	28+21	4
8	8	8	9
9	14	12	10
10	10	9	5,11
11	11	1	14
12	12	11	7
13	16	3	19
14	7.2	29.2+24	6.1
15	7.1	26+29.1	6.2
16	15	5	15
17	17	16	11,13
18	20	18	20
19	19	6	12,18
20	13.2	2.1	21
21	2.1	2.2	16.1
22	13.1	19	16.2

Table S1. Humans vs. Cercopithecidae. In the case of CAE and CGU we have performed inversions (3 and 1 respectively) so that there is at most one segment on each chromosome that corresponds to a given human chromosome.

HSA	CJA	CCA	SSC	CMO
4	3	2	3	1
5	2	1.2	1.1, 20.1	14,19
6	4	3	4	4
7	8	1.1,17	10, 20.2	5, 21
9	1.2	12	2.1	15
11	11	16	8	3.2
12	9	10	5	10, 11.2
13	1.1	11	16	21
17	5.2	20	17	18
19	22	8	14.2	11.1
20	5.1	23	6.1	22
22	1.3	24	19	2.1
2	6.2, 14	4, 14	1.3, 7.2	2.2, 6.2
14/15	10, 6.1	6, 26	2.2, 7.1	13, 5.1
8	8.1, 16	7.1, 13	13.1, 15	9.1, 17
18	8.2	7.2	13.2	9.2
10	7.1,12.2	5.2,25	9.1,12.1	3.1,7.2
16	12.1,20	4.1,5.1	1.2,12.2	6.1,7.1 3
3	13.3, 15, 17	18, 19, 9.1	6.2, 9.2, 21.1	16, 20, 24.1
21	21	9.2	21.2	24.2
1	7.2, 18, 19	15, 21, 22	14.1, 11, 18	8, 12, 23

Table S2. Humans vs. *Cebidae* and *Pitheciidae*

HSA	ABE	LLA	AGE
4	5.2, 11, 20.1	20, 22, 23.1	2.2, 8.1, 15
5	1.2	3, 11.2	5.1, 8.2
6	4	1	7.2, 11.3
7	1.3, 13	11.1, 16	4.2, 8.3
9	2.2	18	1.1
11	1.1	17	10
12	2.1	5	2.1, 16, 5.2
13	14	8	12
17	9	10	14
19	10	13	9.1
20	12.2	12	9.2
22	6.1	30	3.1
2	3.2, 12.1	2.1, 15	3.4, 6.2, 13.2
14/15	5.1, 7.1	6.1, 2.2	2.4, 3.2
8	8.1, 16	4.1, 7	1.3, 5.3
18	8.2	4.2	1.2
10	7.2, 22	6.2, 27	13.1, 1.4
16	5.1, 7.1	2.2, 6.1	1.5, 6.1
3	15, 17, 18.1	20, 22, 23.1	3.3, 4.1, 11.2
21	18.2	23.2	11.1
1	3.1, 19, 21, 23	9, 25, 26, 28	2.3, 4.3, 6.3, 7.1

Table S3. Humans vs. *Atelidae*

Cattle

1. 294-293, 71-74, 82-77, +295
2. 50-56, 10-6
3. 25-11
4. 138-136, 142-143, +133, 144-147
5. 217, 210-211, 213-212, 216-214, -218, -298, 209-203, 299-300
6. 91-88, 84-87
7. 279-273, 106-107, 113-114, -105, 108-112, -104
8. 160-161, 163-164
9. 128-131
10. -238, -227, +235, 237-236, 228, 230-232
11. 43-49, 42-39, 165-168
12. 223-222, 224-226
13. 172-169, 285, 292-291, 286-290
14. 159-158, 153-155, +157
15. 198-202, 189-187, 190-192
16. 32-35, 26, -5, 3-4, 2-1, 31-27
17. 94-92, +219, 221-220, +296
18. -251, 249-250, 280-284
19. 263-264, 257-256, 254-252, +255, 262-258, +265, 269-266
20. 103-97
21. 241, 243-242, 240-239, 233-234
22. -64, 59-60, 70-65, 62-61
23. 122-127, 120-121, 119-115
24. -272, 270-271
25. 244-248, 134-135, 141-139, -132
26. 179-185
27. 150-152, -148
28. 37-38, -173, 176-177, 174-175
29. 193-197

Modifications:

- 1* 295-293, 71-74, 82-76
- 16* 32-35, 26-31, 1-2, 4-3, 5

Cat

- A1. 222-226, -114, 107-105, 108-109, 99-104, 113-110, 98-97
- A2. 273-279, 65, 70-66, -64, 62-59, -133, 136-138, 142-147
- A3. 292-285, 44-46, 43-41, 49-47, 40-39
- B1. +150, +148, 152-151, 94-92, 91-84
- B2. +118, 116-115, -117, 119-131
- B3. 240-243, 239-235, 227-228, 230-234
- B4. 169-172, 207-203, 208-218, 298-300

C1. 1-22, 50-56
 C2. 295-293, 71-74, 82-76
 D1. 198-202, 187-192, 195-197, 194-193
 D2. 38-37, 175-177, 173-174, 179-185
 D3. 221-219, +296, 270-272
 D4. 160-161, 164-163, 165-168
 E1. 255-254, 252-253, 256-257, 264-262, 259-258, 261-260, 265-267, 269-268
 E2. 284-280, 249-251
 E3. +132, 139-141, 135-134, 248-244
 F1. 26-31, -34, 32-33, 23-25, 35
 F2. 153-159

Modifications

A1* 222-226, -114, 107-105, 108-113, 104-97
 F1* 26-31, 25-23, 33-32, 34-35

Human

1. 1-35, 37-38
 2. 39-56
 3. 59-62, 64-74, 76-82
 4. 84-94
 5. 97-114
 6. 115-131
 7. 132-147
 8. +148, 150-155, 157-159
 9. 160-161, 163-168
 10. 169-177, 179-185
 11. 187-202
 12. 203-221
 13. 222-226
 14. 227-228, 230-234
 15. 235-243
 16. 244-251
 17. 252-269
 18. 270-272
 19. 273-284
 20. 285-292
 21. 293-295
 22. +296, 298-300

Table S4. 285 marker data sets. 36, 57, 58, 63, 75, 83, 95, 96, 149, 156, 162, 178, 186, 229, 297 were deleted due to locations not consistent with chromosome painting. 3 were deleted to make block ends match

	Human	Cat	Cow
1.	1-5	=	1-2, 4-3, 5
2.	6-10	=	=
3.	11-22	=	=
4.	23-25	=	=
5.	26-31	=	=
6.	32-35	33-32, 34-35	=
7.	37-38	=	=
8.	39-49	39-40, 47-49, 41-43, 46-44	39-42, 49-43 (1)
9.	50-56	=	=
10.	59-70	59-62, 64, 66-70, -65	-64, 59-60, 70-65, 62-61
11.	71-82	71-74, 82-76	71-74, 82-76
12.	84-91	=	87-84, 88-91
13.	92-94	=	=
14.	97-103	=	=
15.	104-114(1)	104, 113-108, 105-107, 114(1)	104, 112-108, 105, 114-113, 107-106
16./	chr.7	-133, 136-138, 142-147	138-136, 142-143, 133, 144-147
17. \	132-147	132, 139-141, 135-134	132, 139-141, 135-134
18.	148-152	150, 148, 151-152	150-152, -148
19.	153-159	=	157-153, 158-159
20.	160-164	160-161, 164-163	=
21.	165-168	=	=
22.	169-172	=	=
23.	173-177	174-173, 177-175	175-174, 177-176, 173
24.	179-185	=	=
25.	203-209	207-203, 208-209	=
26.	210-218	=	217, 210-211, 213-212, 216-214, -218
27.	219-221	=	219, 221-220
28.	222-226	=	223-222, 224-226
29.	244-248	=	=
30.	249-251	=	250-249, 251
31.	270-272	=	271-270, 272
32.	273-279	=	=
33.	280-284	=	=
34.	285-292	=	285, 292-291, 286-290
35.	293-295	=	=
36.	296	=	=
37.	298	=	=
38.	299-300	=	=

Table S5. Synteny Blocks used to create 38 segment comparison given in Table 2.

(1) 1-2, (2) 3-4, (3) 5
 (4) 6-10
 (5) 11-22
 (6) 23-25
 (7) 26-31
 (8) 32-33, (9) 34-35
 (10) 37-38
 (11) 39-40, (12) 41-42, (13) 43, (14) 44-46, (15) 47-49
 (16) 50-56
 (17) 59-60, (18) 61-62, (19) 64, (20) 65, (21) 66-70
 (22) 71-74, (23) 76-82
 (24) 84-87, (25) 88-91
 (26) 92-94
 (27) 97-103
 (28) 104, (29) 105, (30) 106-107, (31) 108-112, (32) 113, (33) 114
 (34) 132, (35) 133, (36) 134-135, (37) 136-138, (38) 139-141,
 (39) 142-143, (40) 144-147
 (41) 148, (42) 150, (43) 151-152
 (44) 153-157, (45) 158-159
 (46) 160-161, (47) 163-164
 (48) 165-168
 (49) 169-172
 (50) 173, (51) 174, (52) 175, (53) 176-177
 (54) 179-185
 (55) 203-207, (56) 208-209
 (57) 210-211, (58) 212-213, (59) 214-216, (60) 217, (61) 218
 (62) 219, (63) 220-221
 (64) 222-223, (65) 224-226
 (66) 244-248
 (67) 249-250, (68) 251
 (69) 270-271, (70) 272
 (71) 273-279
 (72) 280-284
 (73) 285, (74) 286-290, (75) 291-292
 (76) 293-295
 (77) 296
 (78) 298
 (79) 299-300

Table S6. Conserved segments.

Human

1.1-10
2.11-16
3.17-23
4.24-26
5.27-33
7.34-40
8.41-45
9.46-48
10.49-54
12.55-63
13.64-65
16.66-68
18.69-70
19.71-72
20.73-75
21.76
22.77-79

Cow

1.-76,22,-23
2.16,-4
3.-6,-5
4.-37,39,35,40
5.60,57,-58,-59,-61,-78,-56,-55,79
6. 24,-25
7.-71,30,32,33,-29,31,-28
8.46,47
11.13,14,15,-12,-11,48
12.-64,65
13.-49,73,-75,74
14.-44,45
16.8,9,7,1,-2,3
17.-26,62,-63,77
18.-68,67,72
20.27
22.-19,17,-21,-20,-18
24.-69,70
25.66,36,-38,-34
26.54
27.42,43,-41
28.10,-50,53,51,52

Cat

A1.64,65,-33,-30,-29,31,32,-28,-27
A2.71,20,-21,-19,-18,-17,-35,37,39,40
A3.-75,-74,-73,14,-13,-12,-15,-11
B1.42,41,-43,-26,-25,-24
B4.49,-55,56,57,58,59,60,61,78,79
C1.1,2,3,4,5,16
C2.-76,22,-23
D2.-10,52,53,50,51,54
D3.-63,-62,77,69,70
D4.46,-47,48
E2.-72,67,68
E3.34,38,-36,-66
F1.7,-6,-8,9
F2.44,45

Table S7. 79 conserved segments on nonisolated chromosomes in human-cow-cat comparison.