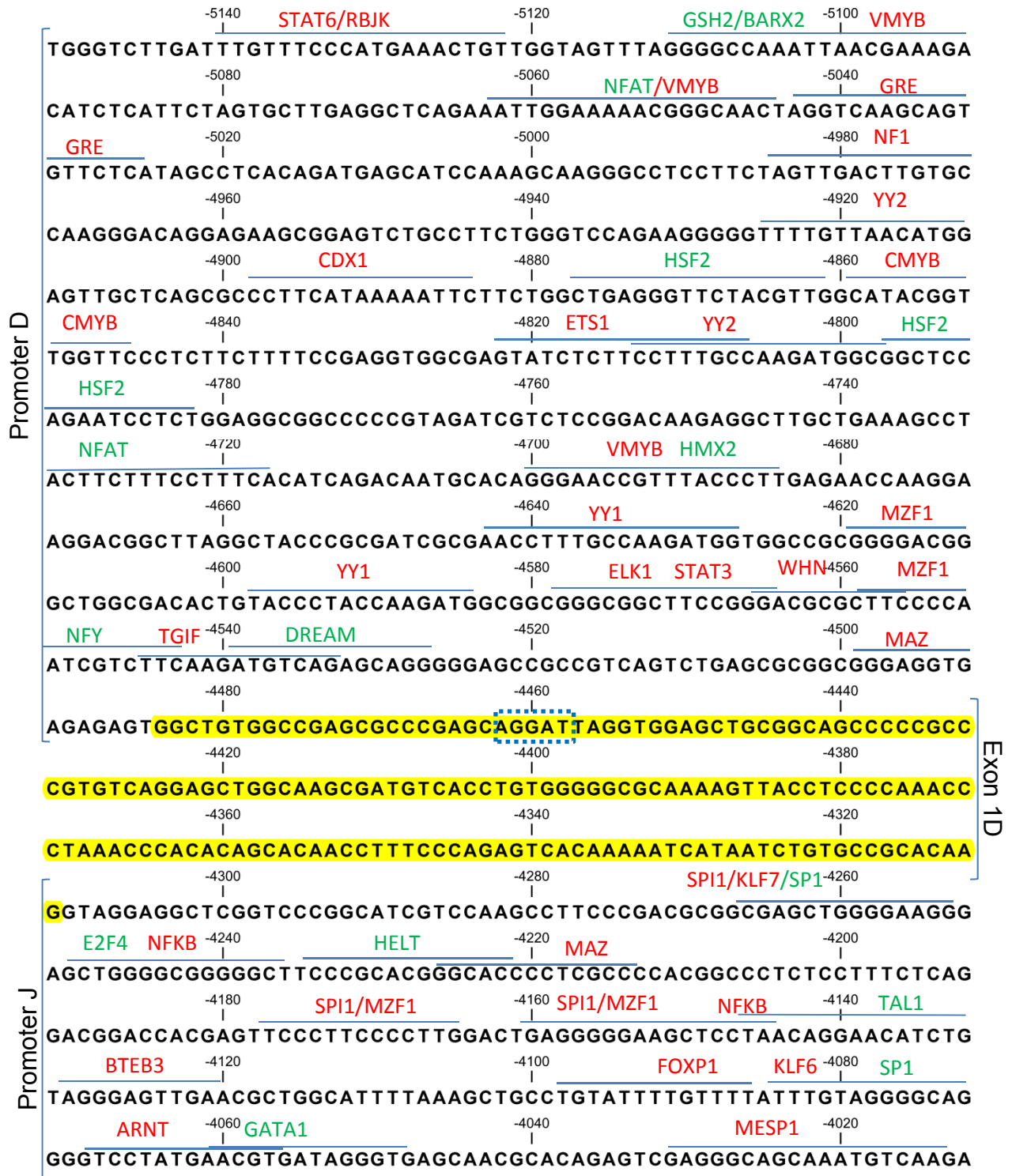
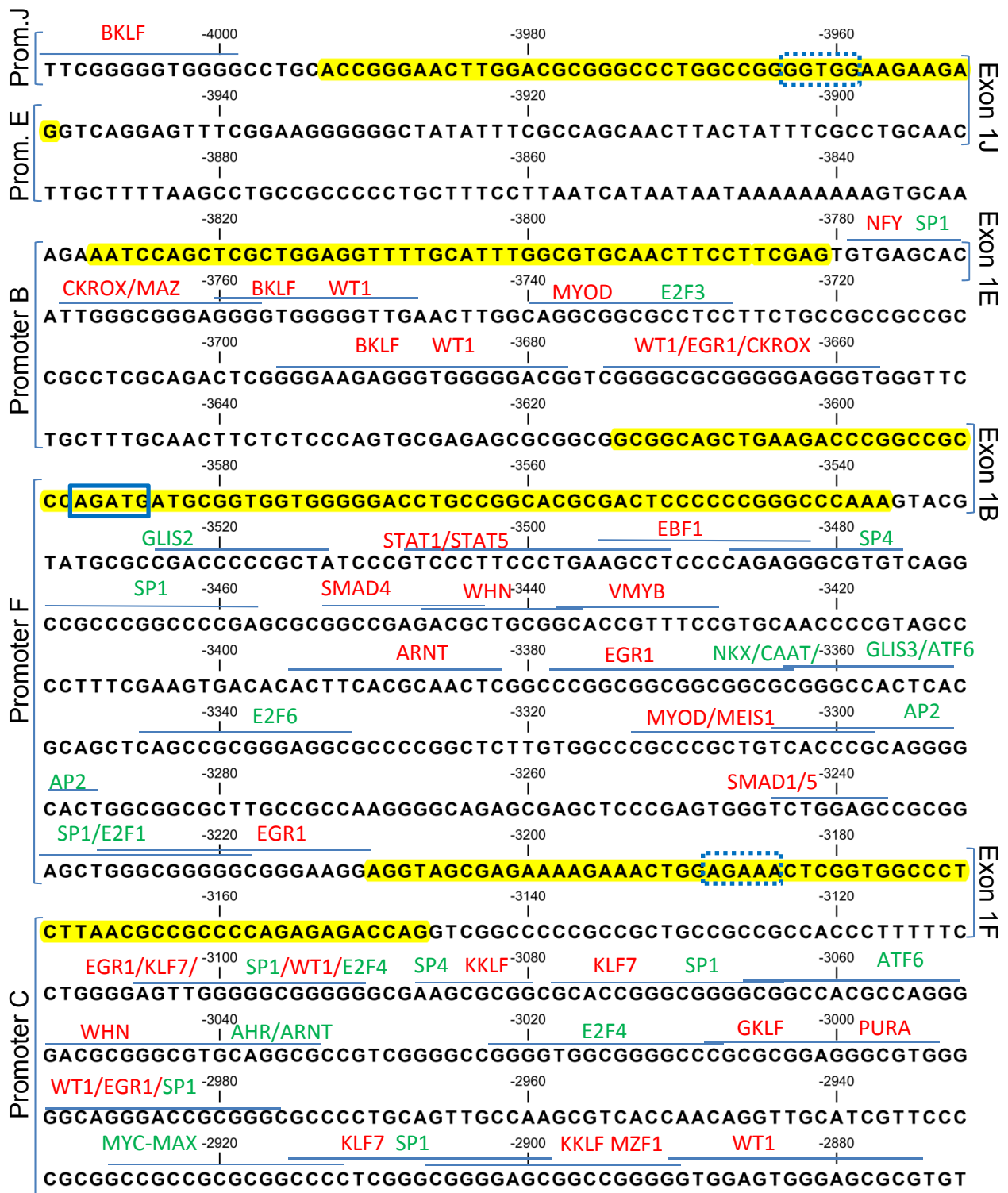


Supplementary Figure 1: Effect of GR α overexpression on GR chaperone expression. HUVECs (3 DEX-sensitive, and 3- DEX-resistant) were transfected with a *GR-1C α* vector to overexpress GR α , followed by starvation and DEX (1 μ M) treatment for 24 h. Total protein lysates were prepared and analyzed by immunoblotting for the expression of the GR chaperones FKBP51, BAG1 and HSP90. Representative immunoblots are shown.

GR Proximal Promoter*





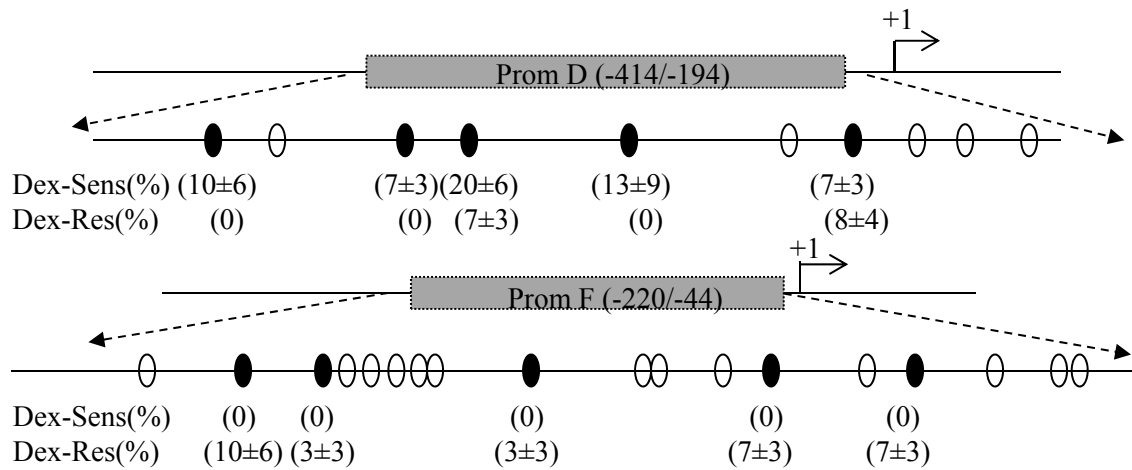


-1720 | -1700 | -1680
 TTTTTTCTCTTCTCCACCCCGCCCCGCAAGGGCTTGCTCTTTAGCGTTTGTGTGTTAATT
 -1660 | -1640 | -1620
 CGCGCCTGAGGTTTCTAAGTGGCCCTTTTAGAAAAAGACCCCTGTAACCGTAATGGTT
 -1600 | -1580 | -1560
 TTGTGCTGCGATTTTTACAAGTGCTAGTTTGACGTTTGGGGTTGCAGACTTGATAATTGCG
 -1540 | -1520 | -1500
 AACCTTGTAATACCACTTAAGACCCTCTGGCATGGTTCATTAGGGCCAATTAATGTGGCT
 -1480 | -1460 | -1440
 GGGTATTTGCAACTTAACTGGGGGATAATGTCGCTTGAGGGAGCGTTTTTCGTTTTAGG
 -1420 | -1400 | -1380
 AAATATTGTTTTGGTTTTCGGGTTTGAAGGCAGCTGTCAAAAAGCGGCATGGAAATTCAT
 -1360 | -1340 | -1320
 TGGGCTCCATTCGATACCTCGTGTTTAGAGATCGTTATCGCCTCAGATAAACGGGGCAGA
 -1300 | -1280 | -1260
 GAGGTGGGGAGATAAGCAGTTTACCCTCAAGATTTGTAGTGGCAAGTCCACACCCCTCTC
 -1240 | -1220 | -1200
 TCTACCTTCATATTCACTTTTCAGTGAGGGCCAGTGACATTTATGCTGCCTAACGTCATC
 -1180 | -1160 | -1140
 GCATAGGAAAAGTTACCTTTTATTGGACGGGATTTGACTATAGTGTCCCAAATGCGCTTC
 -1120 | -1100 | -1080
 TCCGTCTTAGCCCATCTCTTAAACACCCTGATTAACGATATACTAACAGTCTTACTCTC
 -1060 | -1040 | -1020
 TTGAGAATAGGCTGAGAATTGGGATAGGTGAAGGTTTGGATAGGTGAAGGCAGAGAAAAT
 -1000 | -980 | -960
 TATTTTGAACATTTTACTGGATACAGTTGTACCTGAATTTATATGAATGTGATTTTACGG
 -940 | -920 | -900
 TTCTGTGTTTTTCCATTTTTCAGTACTTCGATATTTGTTTGGAAAGGAAAGAACTTAGAG
 -880 | -860 | -840
 ATGTAATAGCATTTTCATATTGAGGATCTCAAGCAATGTAAACAAATGTAGCTTAATCTAG
 -820 | -800 | -780
 ATGTTTTTGTGAGTTATGATAAGGGTCAGCTATATTTAAGTTATGTAAGCTAACACGTA
 -760 | -740 | -720
 GTGAGAACTACTACACCTTCTCTTCTGCTCTTTAAAATCTAAATTTTAGTTGGCCTATA
 -700 | -680 | -660
 TAAAGTGTATCTCATTTTCATATATCCAAAATTTGGAGGTAGGCACATCCAGTCAGAAGTA
 -640 | -620 | -600
 TGGGTTAAAAGCCTTTTCCAGCCTGTTCGGAAGATAAGCAGATCAGCATTGTTTTATTTT

Intron 1



Supplementary Figure 2. The *GR* proximal promoter is shown with its 7 untranslated exons 1 (highlighted in yellow) followed by intron 1 and exon 2 (translational starting point highlighted in green). Analysis of the *GR* proximal promoter was performed with the aid of MattInspector (Genomatix Inc.). Putative Initiator elements (Inr) are shown in green squares and the putative downstream promoters (DPE) are shown in blue squares (dashed squares represent partial sequences instead of consensus sequences). Putative transcription factor elements with a matrix/core similarity higher than 0.9 were selected; transcription factors known to be expressed in the cardiovascular system are shown in green, and the remainder in red.



Supplementary Figure 3: Bisulfite sequencing of *GR* promoters 1D and 1F. Dex-sensitive (n=3-4) and Dex-resistant (n=3-4) HUVEC DNA was treated with bisulfite, PCR-amplified, and sequenced as described under methods. Each oval represents one CpG, black ovals represent methylated CpGs. The average \pm standard errors for the methylation percentages is shown below.

Supplementary Table 1. Clinical Characteristics of the Study Subjects

	Dex-Sensitive (n=15)	Dex-Resistant (n=10)	<i>P</i>
Maternal age, y	31.5 ± 2.0	30.4 ± 2.3	0.701
Pre-pregnancy BMI, kg/m ²	27.2 ± 1.1	22.0 ± 1.3	0.038*
Maternal weight gain, lb	31.8 ± 4.2	37.5 ± 3.8	0.450
Systolic blood pressure, mm Hg	115.8± 2.0	106.5 ± 3.1	0.025*
Diastolic blood pressure, mm Hg	72.3 ± 1.7	68.3 ± 1.4	0.173
Smoking, yes/no	3/12	0/10	0.190
Gestational age (wk)	39.8 ± 0.3	39.1 ± 0.4	0.080
Newborn sex (F/M)	6/9	4/6	0.558
Race, African American/Caucasian (%)	6/9 (40)	5/5 (50)	0.246
Birth weight (g)	3525 ± 114	3401 ± 181	0.574
Umbilical cord blood cortisol, nmol/L	441 ± 10.2	401 ± 11.1	0.061

*p<0.05, Dex-sensitive vs. Dex-resistant.

Supplementary Table 2¹. SYBR green PCR primers for GR mRNA isoforms

Name	Sequence	Annealing Temperature (°C)	PCR product size
GR- α	5'-CAAAGAGCTAGGAAAAGCCAT-3' 5'-CAATACTCATGGTCTTATCCAA-3'	54	161
GR- β	5'-TCAGTTCCTAAGGACGGTCT-3' 5'-ACCACATAACATTTTCATGCAT-3'	50	175
GR-P	5'-TGTTTTGCTCCTGATCTGA-3' 5'-CCTTTGTTTCTAGGCCTTC-3'	50	223
1F	5'-AGAACTCGGTGGCCCTCTTA-3' 5'-AAGCACACTGCTGGGGTTTT-3'	57	112
1H*	5'-GGCGTTATCTGTTAGAAGTG-3' 5'-ATAGAAGTCCATCACATCTC-3'	48	149
18S	5'-CGGCTACCACATCCAAGGAA-3' 5'-GCTGGAATTACCGCGGCT-3'	60	78

¹PCR settings: 15 min hotstart activation at 94 °C, 55 cycles of 15 sec at 94 °C, 20 sec at annealing temperature, and 20 sec extension at 72 °C. Quantification was set at extension.

*Fluorescence quantification set at 76 °C, instead of 72°C.

Supplementary Table 3. Primers used to clone human *GR* proximal promoters

Name*	Sequence	PCR size	Position**
1B Mlu II Bgl II	5'-AACTTGGACGCGTGCCCTGG-3' 5'-CACCGCAAGATCTGGGCGGC-3'	409	-3568/-3977
1C Kpn- Xho I	5'-GGAAGGAGGTACCGAGAAA-3' 5'-TCGGCCGCTCGAGCTGCGG-3'	568	-2646/-3214
1D Kpn I Xho I	5'-AACTGTTGGTACCTTAGGGGC-3' 5'-TAATCCTGCTCGAGCGCTCGG-3'	672	-4443/-5115
1F Kpn I Xho I	5'-TGGTGGGGTACCTGCCGG-3' 5'-CCACCGAGTTTCTCGAGTTTCT-3'	402	-3167/-3569
1H Kpn I Xho I	5'-GCGAGCGGTACCTCTGCC-3' 5'-CGCCAGATCTAACAGAT-3'	607	-1775/-2382

*Name of the *GR* promoter and the restriction enzyme sites used.

**Relative to translational start codon ATG in exon 2

Supplementary Table 4. Primers for MeDIP SYBR green PCR analysis and bisulfite sequencing.

Name	Sequence	Annealing Temperature (°C)	Location relative to Exon 1's starting site
MeDIP Prom 1B	5'-CGCCCCCTGCTTTCCTTAAT-3' 5'-TGTGCTCACACTCGAAGGAA-3'	56	-267 to -156
MeDIP Prom 1C	5'-ACCCTTTTTCCTGGGGAGTT-3' 5'-ATGCAACCTGTTGGTGACG-3'	55	-371 to -189
MeDIP Prom 1D	5'-GGGCAACTAGGTCAAGCAGT-3' 5'-CGCTGAGCAACTCCATGTTA-3'	55	-567 to -416
MeDIP Prom 1F	5'-CTATCCCGTCCCTTCCCTGAA-3' 5'-TGTCACTTCGAAAGGGGCTAC-3'	56	-305 to -187
MeDIP Prom 1H	5'-CGGGAATCCTGGCCTCTTTT-3' 5'-CGTGCAAATATTCGGGCGAG-3'	56	-172 to -50
Bisulfite Prom 1D	5'-AAATTTTTTTGGTTGAGGGTTTTA-3' 5'-TCCTTCCTTAATTCTCAAAAATAAAC-3'	40	-413 to -191
Bisulfite Prom 1F	5'-TGTGTAATTTTGTAGTTTTTTTTGA-3' 5'-AAAACCTCACTCTACCCCTTAACAAC-3'	40	-218 to -42