Figure S1

S1A



Untreated



S1B



Supplementary figure 1. A) Influence of single high-dose of ETP (10 μ M, 15 μ M and 30 μ M) on cell density and cell morphology. The scale bar represents 50 μ m. B) Influence of single high-dose of ETP (10 μ M, 15 μ M and 30 μ M) on intracellular ATP levels in hiPSC-CMs. (n = 3, error bars represent ± SEM) (t test, *p ≤ 0.05).

Figure S2



■0h 🗉 48h 🔳 W/O

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S2B

300 ¬

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Supplementary figure 2. A) The hiPSC-CMs were co-treated with ETP and 10 μM Pifithrin-α (apoptosis inhibitor) for 48 h. Real time data of CMs beating rate was obtained using xCELLigence RTCA system. Representative graphs display % beating rate values. (n = 3, error bars represent ± SEM) (t test, *p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001, NS, non-significant). B) The hiPSC-CMs were co-treated with ETP and 200 nM Liproxstatin-1 (ferroptosis inhibitor) for 48 h. Real time data of CMs beating rate was obtained using xCELLigence RTCA system. Representative graphs display % beating rate values. (n = 3, error bars represent ± SEM) (t test, *p ≤ 0.05, **p ≤ 0.01, ***p ≤ 0.001, NS, non-significant).

Supplementary table 1. The fold change values for 84 genomic

markers after Etoposide treatment

| | Etoposide (µM) | | | | | | | |
|---------|----------------|------------|------------|--|--|--|--|--|
| | 10 | 15 | 30 | | | | | |
| TNNI3 | 0.3 | -1.1 | -1.7 | | | | | |
| MYL2 | 0.3 | -1.3 | -3.2 | | | | | |
| MYL3 | -1.6 | -2.0 | -5.1 | | | | | |
| | -1./ | -2.0 | -3.3 | | | | | |
| | 1.7 | 1.0 | 1.0 | | | | | |
| TCAP | 13 | -1.7 | -3.2 | | | | | |
| PGAM2 | -0.4 | -0.5 | -1.5 | | | | | |
| HRC | -0.5 | -0.5 | -1.7 | | | | | |
| MYOM2 | -1.4 | -1.5 | -2.1 | | | | | |
| MB | -0.3 | -1.1 | -1.4 | | | | | |
| FHL2 | -1.4 | -1.7 | -3.7 | | | | | |
| MYH6 | 0.3 | 1.1 | 1.2 | | | | | |
| MYH7 | -1.6 | -1.6 | -3.8 | | | | | |
| GJA5 | -1.9 | -2.0 | -2.3 | | | | | |
| ANK2 | -1.3 | -1.1 | -1.2 | | | | | |
| | -2.3 | -2.3 | -2.3 | | | | | |
| | -0.5 | -1.2 | -1.8 | | | | | |
| CASO2 | -0.6 | -1.5 | -3.2 | | | | | |
| | -1.5 | -1.6 | -2.1 | | | | | |
| NRAP | 1.3 | 1.3 | -1.9 | | | | | |
| UCP2 | -2.3 | -2.3 | -2.9 | | | | | |
| COX6A2 | -1.3 | -1.6 | -3.6 | | | | | |
| ATP1B4 | 1.8 | 1.9 | 0.7 | | | | | |
| ATP1A2 | -1.2 | -1.3 | -2.1 | | | | | |
| KCNQ1 | -1.2 | -1.2 | -1.5 | | | | | |
| KCNK3 | 0.6 | 1.4 | 1.4 | | | | | |
| KCNN2 | -1.4 | -1.7 | -2.7 | | | | | |
| KCNH2 | 0.5 | 1.3 | 1.3 | | | | | |
| SCN2B | 0.6 | 1.3 | 1.1 | | | | | |
| SUC8A1 | -1.5 | 1.1 | -1.0 | | | | | |
| | -1.5 | -1.3 | -2.0 | | | | | |
| PYGM | -2.6 | -2.9 | -3.5 | | | | | |
| CKM | -1.9 | -2.6 | -5.0 | | | | | |
| KRT19 | 1.4 | 1.6 | 2.0 | | | | | |
| ANK1 | 7.9 | 10.0 | 10.4 | | | | | |
| PDLIM3 | 2.9 | 3.0 | 2.9 | | | | | |
| ABRA | 1.9 | 2.8 | 3.0 | | | | | |
| MYOT | 2.4 | 2.5 | 2.9 | | | | | |
| SCN4B | 3.1 | 3.1 | 2.9 | | | | | |
| TRPV1 | 0.7 | 1.7 | 2.5 | | | | | |
| GLS2 | 2.6 | 3.3 | 4.8 | | | | | |
| | -1.8 | -2.0 | -2.2 | | | | | |
| | 0.0 | 1.3 | 2.1 | | | | | |
| CASP3 | 1.3 | 1.5 | 1.6 | | | | | |
| MURC | -0.3 | -0.4 | -1.4 | | | | | |
| POSTN | 2.1 | 1.9 | 1.6 | | | | | |
| ERBB3 | -1.5 | -1.9 | -2.3 | | | | | |
| JAK2 | 1.1 | -1.2 | -0.7 | | | | | |
| IGFBP3 | 1.3 | 1.3 | 1.4 | | | | | |
| PPP1R3A | -0.4 | -0.4 | -0.5 | | | | | |
| RYR2 | -1.7 | -1.7 | -2.5 | | | | | |
| IRX4 | -1.4 | -1.4 | -1.8 | | | | | |
| | -1.5 | -1.6 | -1.7 | | | | | |
| | -1.5 | -1.8 | -1./ | | | | | |
| STC1 | 0.0 | 0.5 | 2.8 | | | | | |
| PRDM16 | -0.7 | -0.6 | -1.4 | | | | | |
| CALM1 | 1.4 | 1.5 | 1.8 | | | | | |
| ZMAT3 | 2.5 | 2.8 | 3.1 | | | | | |
| GDF15 | 53.1 | 72.1 | 89.3 | | | | | |
| ACE2 | 2.0 | 2.1 | 1.9 | | | | | |
| AVPR1A | 6.8 | 10.0 | 11.8 | | | | | |
| FAS | 9.1 | 10.0 | 14.8 | | | | | |
| | 4.2 | 5.1 | 5.9 | | | | | |
| | 4.3 | 5.8 1 0 | 10.2 | | | | | |
| | 0.9 | 1.0 | 1.0 6.1 | | | | | |
| THBS4 | 1.0 | 1.4 | 1.8 | | | | | |
| RGCC | 2.1 | 2.7 | 4.7 | | | | | |
| NRG1 | 2.8 | 3.8 | 4.3 | | | | | |
| CTGF | 3.3 | 4.1 | 5.9 | | | | | |
| KCNJ2 | 1.4 | 1.5 | 1.4 | | | | | |
| F11R | 2.1 | 2.5 | 3.1 | | | | | |
| TPM1 | -1.0 | -1.2 | -1.7 | | | | | |
| KLF5 | 0.8 | 1.8 | 1.9 | | | | | |
| GADD45A | 3.4 | 3.9 | 4.2 | | | | | |
| GPX1 | 2.0 | 2.4 | 2.8 | | | | | |
| | 7.2 | 9.7 | 14.7 | | | | | |
| NQU1 | 1.1 | 1.3 | 1.9 | | | | | |
| UXK1 | 1.1 | 1.2 | 1.2 | | | | | |

| 2 | Supplementary table 2. The fold change values of 14 miRNAs after |
|---|--|
| 1 | Supplementally table 2. The fold change values of 14 minutes after |
| 0 | Etoposide treatment |
| 6 | |

| -1.4 1.6 | | Etoposide (µM) | | |
|----------------------|-----------------|----------------|-----|-----|
| -2.3 -0.7 | | 10 | 15 | 30 |
| 1.4 -0.5 | hsa-miR-486-3p | 5.1 | 5.2 | 6.4 |
| -2.5 -1.8 -1.7 | hsa-miR-34c-5p | 2.2 | 2.2 | 2.1 |
| -1.7 -1.7 -1.1 | hsa-miR-4423-3p | 2.3 | 2.2 | 2.0 |
| 2.8 -1.4 | hsa-miR-182-5p | 1.4 | 1.7 | 2.9 |
| 1.8 3.1 | hsa-miR-139-5p | 1.2 | 1.6 | 2.3 |
| 39.3 1.9 | hsa-miR-34a-3p | 1.8 | 1.6 | 1.4 |
| 14.8 5.9 | hsa-miR-1303 | 1.2 | 1.6 | 1.7 |
| 10.2 1.8 | hsa-miR-187-3p | 1.3 | 1.1 | 1.0 |
| 6.1 1.8 | hsa-miR-486-5p | 1.3 | 1.0 | 1.0 |
| 4.7 4.3 | hsa-miR-34c-3p | 1.0 | 1.2 | 1.1 |
| 5.9 1.4 3.1 | hsa-miR-212-3p | 0.8 | 0.8 | 0.7 |
| -1.7 1.9 | hsa-miR-4298 | 0.8 | 0.9 | 0.8 |
| 4.2 2.8 | hsa-miR-3911 | 0.9 | 0.9 | 0.8 |
| 14.7 1.9 | hsa-miR-675-5p | 0.7 | 0.7 | 0.7 |