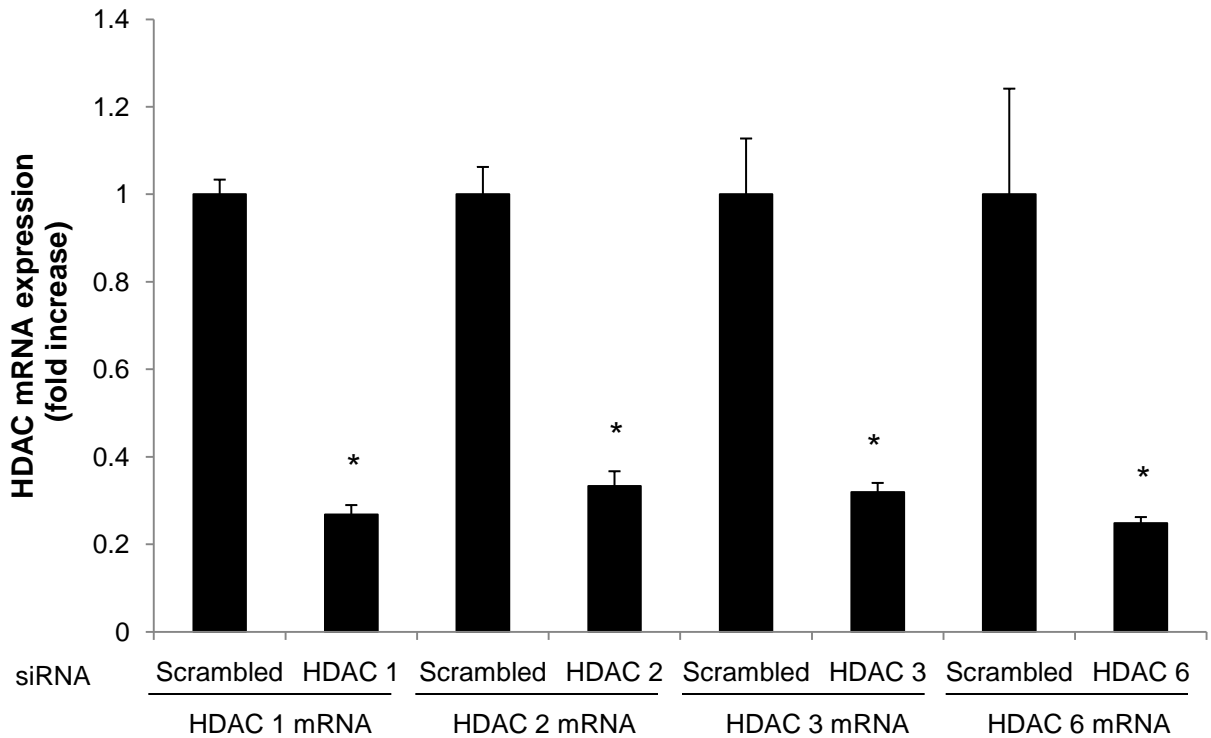


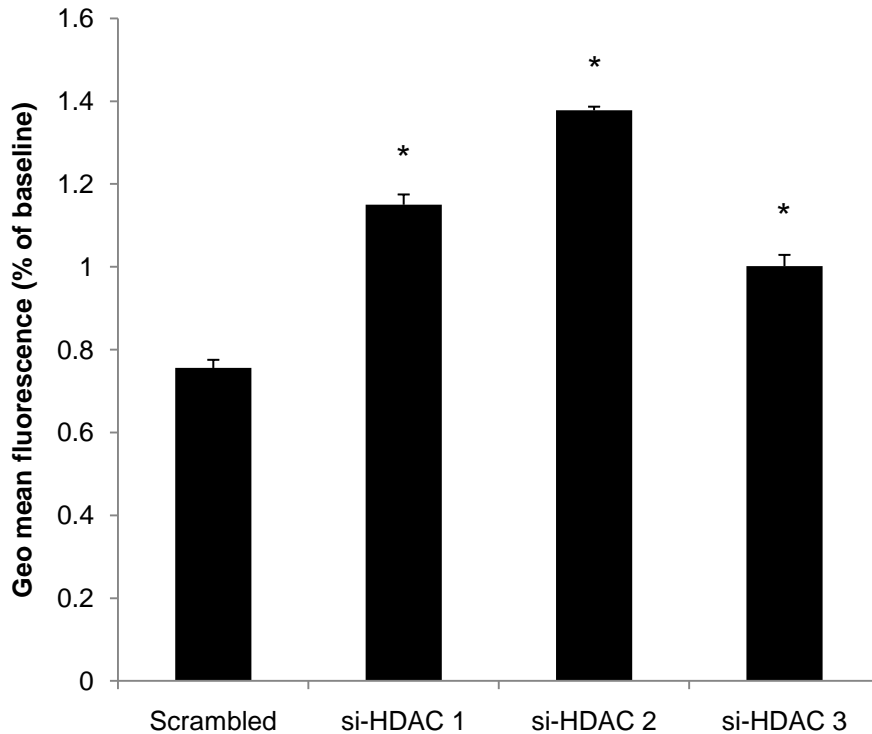
# Supplement Material

## Supplemental Figure I



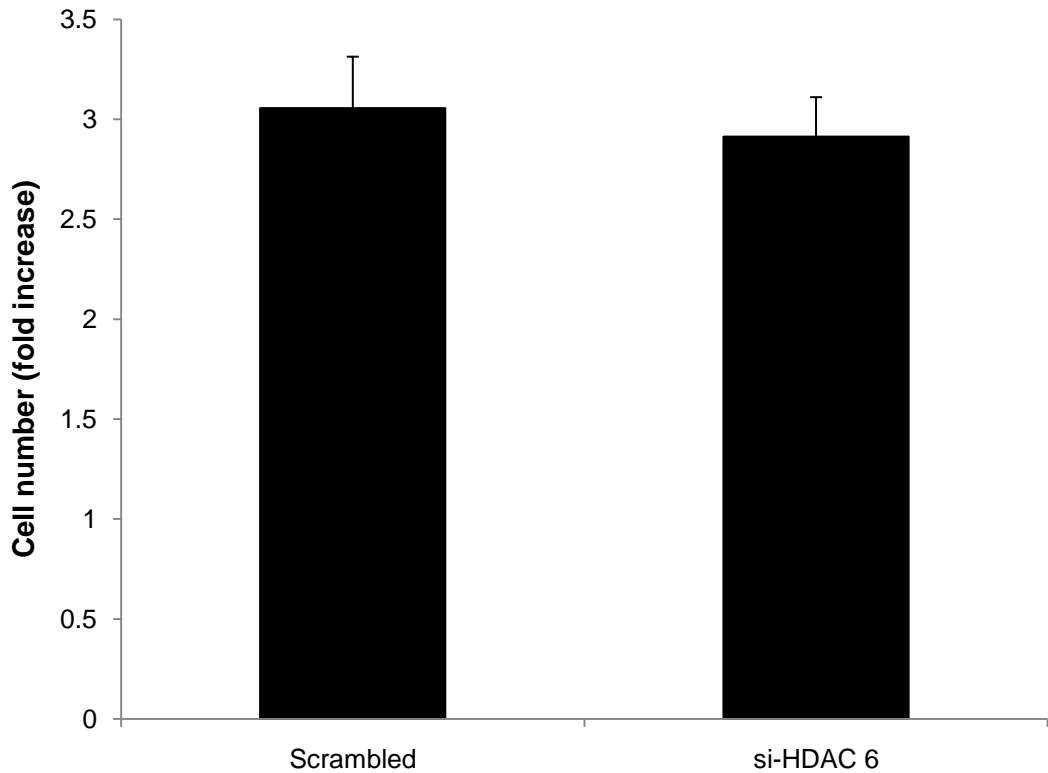
Supplemental Figure I: siRNA mediated knock down of HDAC mRNA expression: SMC were transfected twice with siRNA against HDAC 1, 2, 3, 6 or scrambled siRNA. Knock down efficiency was confirmed after 48 h using real-time RT-PCR (\*  $p < 0.05$  vs. scrambled).

## Supplemental Figure II



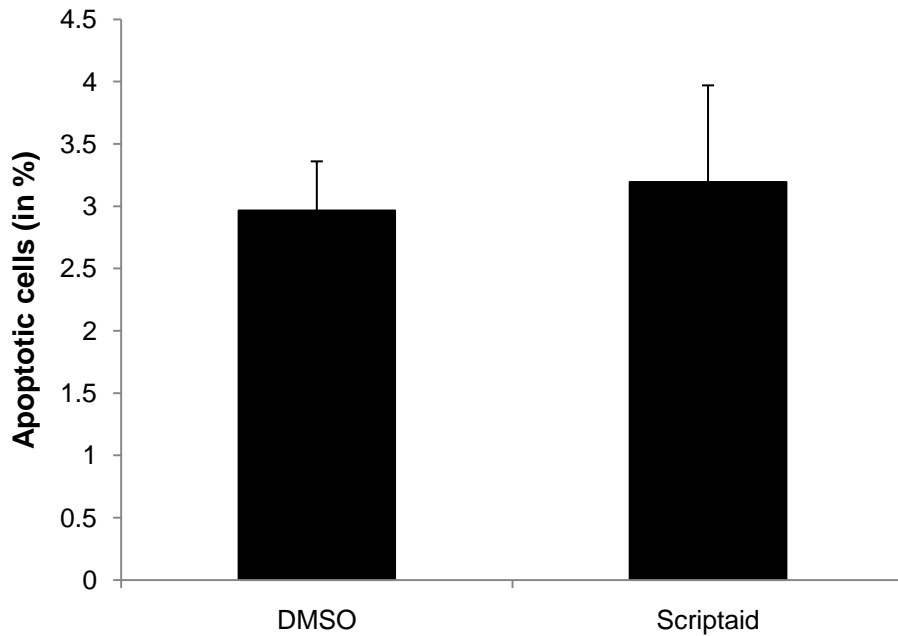
Supplemental Figure II: Knock down of class I HDACs inhibits SMC proliferation. Cells were transfected twice with siRNA against HDAC 1, 2, 3, stained with CFSE, and serum-deprived for 24 h. Following this starvation period, synchronized cells were stimulated with 10 % FBS for 72 h and analyzed by FACS. Note, CFSE mean fluorescence declines with cell division, and geometric mean fluorescence is inversely proportional to the proliferation rate. Data is presented as mean  $\pm$  SEM (\*  $p < 0.05$  vs. scrambled).

### Supplemental Figure III



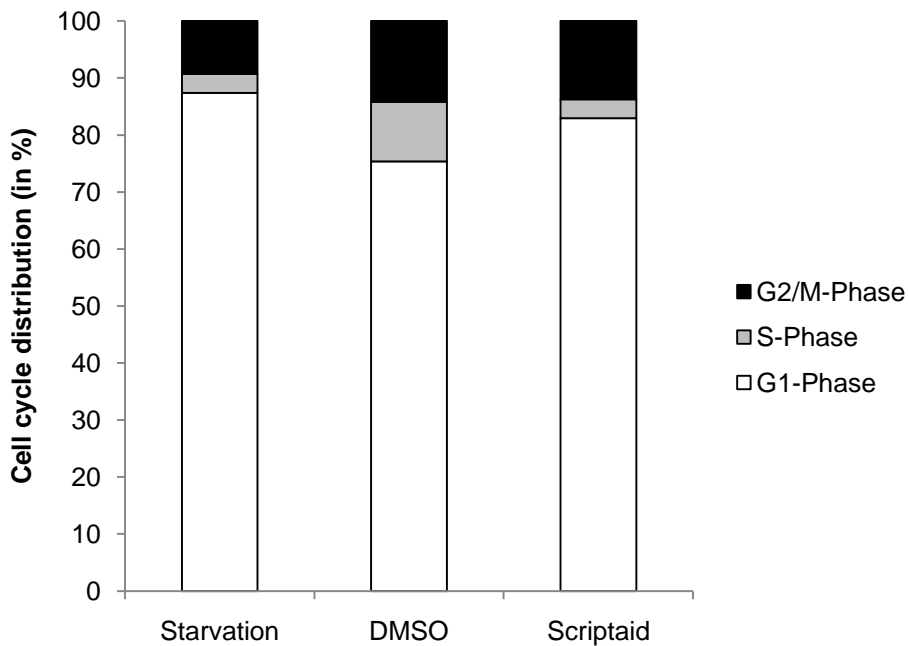
Supplemental Figure III: Normal proliferation following knock down of HDAC 6. Cells were transfected twice with siRNA against HDAC 6 or scrambled siRNA and serum-deprived for 24 h. Following this starvation period, synchronized cells were stimulated with 10 % FBS for 48 h and counted using a hemocytometer. Data is presented as mean SEM with

## Supplemental Figure IV



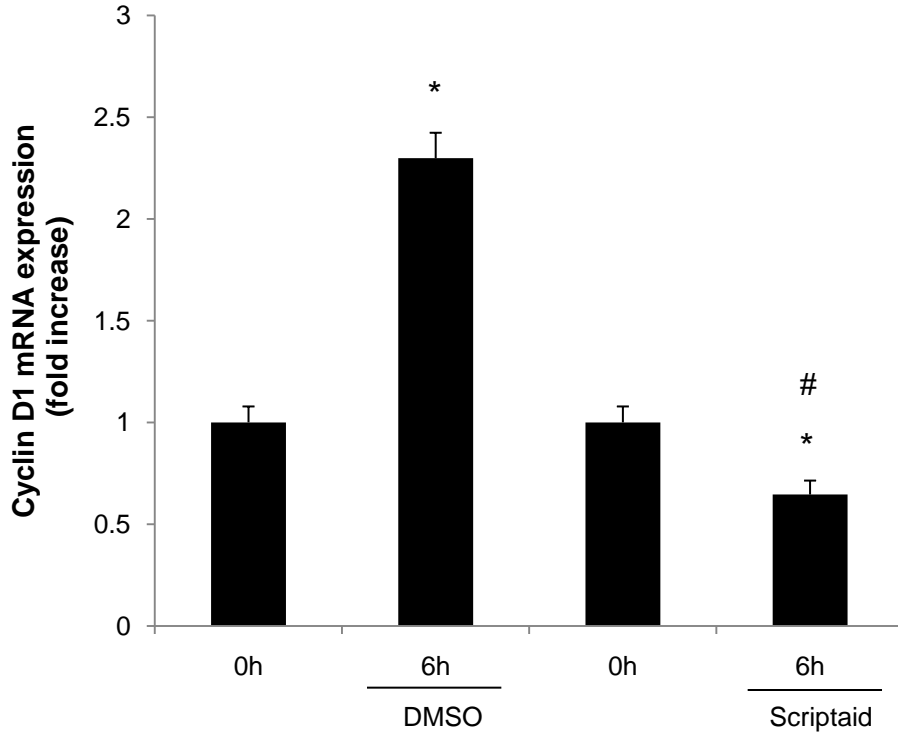
Supplemental Figure IV: Scriptaid does not induce apoptosis in SMC. Serum-deprived SMC were pretreated with DMSO or 6  $\mu$ M Scriptaid, and stimulated with 10% FBS. Apoptosis was analyzed after 24 h cells using FACS.

## Supplemental Figure V



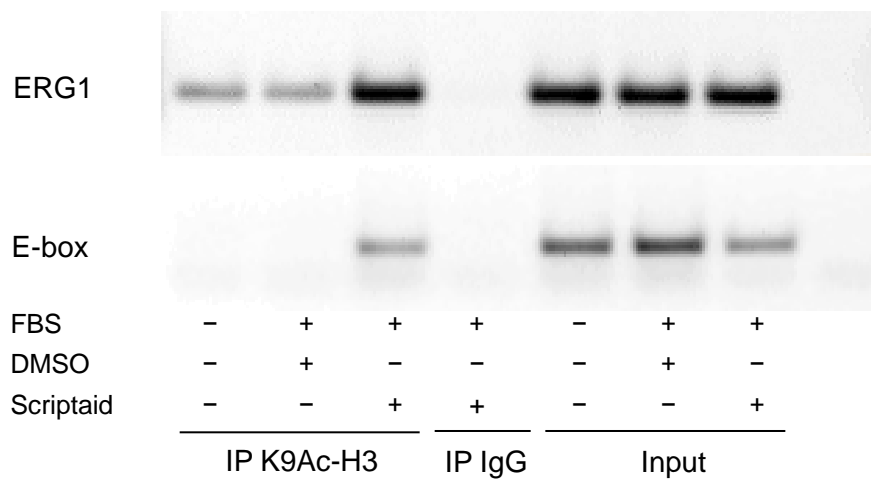
Supplemental Figure V: Scriptaid prevents cell cycle progression in PDGF-stimulated SMC. Serum-deprived SMC were pretreated with DMSO or 6  $\mu$ M Scriptaid and stimulated with 50 ng/ml PDGF. Cell cycle distribution was assessed at baseline and 24 h after PDGF stimulation using FACS analysis.

## Supplemental Figure VI



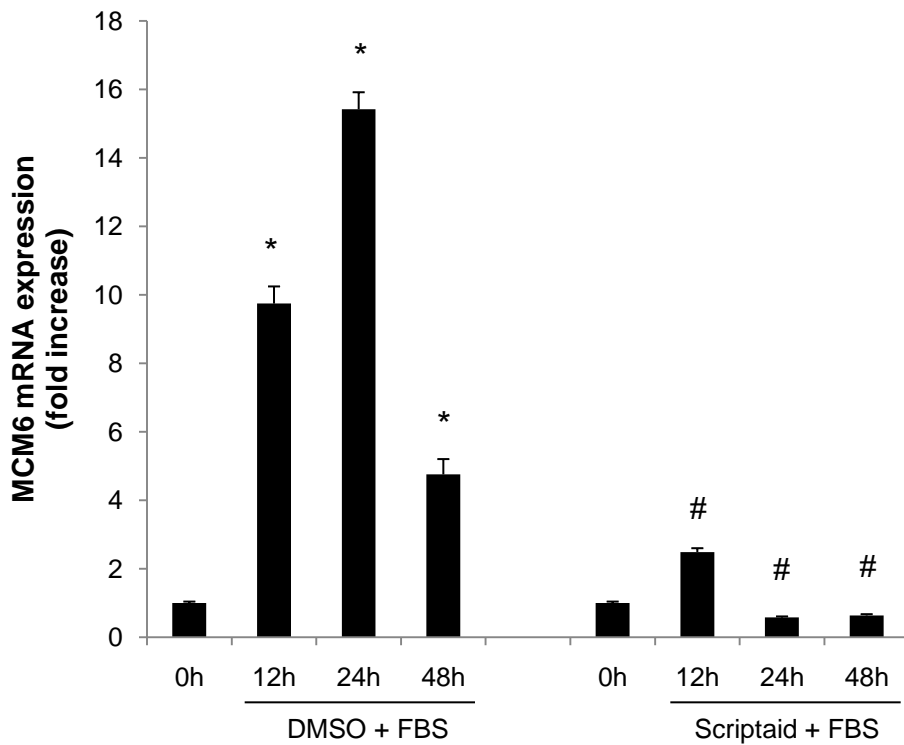
Supplemental Figure VI: Scriptaid represses cyclin D1 transcription in PDGF stimulated SMC. Serum-deprived SMC were pretreated with DMSO or 6  $\mu$ M Scriptaid, and stimulated with 50 ng/ml PDGF. Cyclin D1 mRNA expression was analyzed after 6 h using real-time RT-PCR. Data is presented as mean  $\pm$  SEM (\*  $p < 0.05$  vs. baseline, #  $p < 0.05$  vs. DMSO).

## Supplemental Figure VII



Supplemental Figure VII: Scriptaid induces histone H3 acetylation at the cyclin D1 promoter. Serum-deprived SMC were pretreated with DMSO or 6  $\mu$ M Scriptaid, and stimulated with 10% FBS. Chromatin was collected after 2 h for ChIP assays. After chromatin immunoprecipitation using an antibody against histone H3 acetylated at lysine 9, PCR analysis was performed with primer pairs that cover the E-box or EGR1 binding site in the rat cyclin D1 promoter.

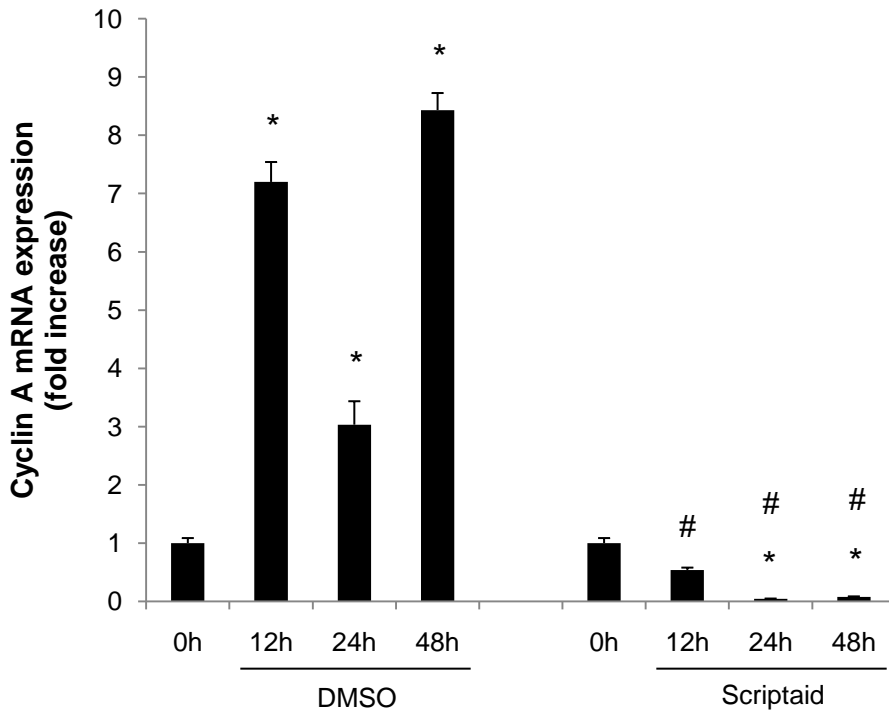
## Supplemental Figure VIII



Supplemental Figure VIII: HDAC inhibition results in silencing of Rb/E2F target genes. Serum-deprived SMC were treated with DMSO or 6  $\mu$ M Scriptaid, and stimulated with 10% FBS. Cells were harvested at the indicated time points and analyzed for mRNA expression of MCM6 and Cyclin A. Data is presented as mean  $\pm$  SEM (\*  $p < 0.05$  vs. baseline, #  $p < 0.05$  vs. DMSO).



## Supplemental Figure IX



Supplemental Figure IX: HDAC inhibition results in silencing of Rb/E2F target genes. Serum-deprived SMC were treated with DMSO or 6  $\mu$ M Scriptaid, and stimulated with 10% FBS. Cells were harvested at the indicated time points and analyzed for mRNA expression of MCM6 and Cyclin A. Data is presented as mean  $\pm$  SEM (\*  $p < 0.05$  vs. baseline, #  $p < 0.05$  vs. DMSO).

## Supplemental Table I

**Supplemental Table 1. Morphological Analysis of Mouse Femoral Arteries**

	DMSO	Scriptaid	p-value
Vessel size, $\mu\text{m}^2$	49149 $\pm$ 4115	50619 $\pm$ 2868	0.77
Luminal area, $\mu\text{m}^2$	28152 $\pm$ 3624	32473 $\pm$ 4531	0.46
Intimal area, $\mu\text{m}^2$	12554 $\pm$ 2001	8225 $\pm$ 2272	0.17
Medial area, $\mu\text{m}^2$	8443 $\pm$ 684	9919 $\pm$ 725	0.16
Intima/media ratio	1.55 $\pm$ 0.26	0.75 $\pm$ 0.18	0.02*