Supplementary Table 1: Top ten differentially regulated genes in the pancreatic cancer MUC4 expressing cell line (Capan1) compared to MUC4 non-expressing cell line (Panc1) as analyzed using chromatin modifying enzyme PCR array.

Gene Name	Fold Change (Capan1/Panc1) Arbitrary Unit
Upregulated	
PRMT6	15.59
HDAC9	11041
HDAC10	8.83
KDM4C	5.58
KDM6B	4.93
NCOA3	4.35
SETD1B	3.12
KAT2A	3.03
KDM1A	2.99
ESCO2	2.99
Downregulated	
PRMT8	0.02
AURKC	0.10
KAT2B	0.13
NCOA1	0.17
MLL5	0.20
UBE2A	0.23
KDM5B	0.24
ATF2	0.30
SMYD3	0.32
ESCO1	0.34

Supplementary Table 2: The list of top ten differentially expressed genes and cytokines down regulated after NCOA3 KD.

Gene symbol	p-value	Fold change (KD/Control)
Downregulated (Top ten)		
LOXL2	<0.0001	0.241
ADRB2	0.0001	0.248
FERMT2	0.0003	0.289
CAV1	0.0001	0.296
ASAP1	0.0001	0.346
STEAP4	0.0003	0.348
LIFR	0.0001	0.351
IL8	0.0006	0.381
PRDM8	0.0004	0.384
RASSF8	0.0001	0.406
Upregulated (Top ten)		
TRIM13	0.005	4.350
CLRN3	0.0005	3.757
WBP1L	0.004	3.149
CDH17	0.0001	2.978
ALDH3A1	0.005	2.919
CCT7	0.004	2.733
FUS	0.002	2.676
PRR13	0.0003	2.650
CCT2	0.002	2.605
CLDN18	0.003	2.595
Cytokines		
CXCL1	0.0002	0.428
CXCl5	0.0004	0.576
CCL20	0.0038	0.577
CXCL2	0.0006	0.591
Miscellaneous		
FUT 8	0.0004	0.493

Gene Name	Primer sequence	
NCOA3	For	5’-TGGTGCTGCGGTGATGAGGC-3’
	Rev	5’-TCTCTGCTGCGTTGGGCGAC-3’
IL8	For	5’- GAGTGGACCACACTGCGCCAA-3’
	Rev	5’- TCCACAACCCTCTGCACCCAGTT-3’
FUT8	For	5’- AATACTTGATCCGCCCACAG-3’
	Rev	5’- TCAATGGGATGGAAGGCAG-3’
PRMT8	For	5’-CTCCCGCTGCCTGCTCCTGA-3’
	Rev	5’-ATGGACGCATTGCACGGGCT-3’
HDAC9	For	5’-AGAACTTGACACGGCAGCACCA-3’
	Rev	5’AGGAGTTCTTGTTGCTGTTTTATGGCT-3’
KDM5B	For	5’-TGCCCAATGGTGCGGCTCTG-3’
	Rev	5’-CGGGGATAGATCGGCCTCGTGT-3’
CLRN3	For	5’-ACACCTGGAACGGGCTCGGTG-3
	Rev	5’-AGTTGGTTGGACTGCGTGTTCGC-3’
CDH17	For	5’-CCGGGGGAGATACTCCAGTCGT-3’
	Rev	5’-ACACAGGGAGTGAAGATGGGCC-3’
MYO1A	For	5’-CCGGTCAGAGGCTGCCCTCA-3’
	Rev	5’-CACTTGTAGGGGGCGGCTGG-3’
LOXL2	For	5’-CCTCTGCTCGAGAAAGGGGCTC-3’
	Rev	5’-GAGGGACAGGCGGGGTACAGAAG-3’
PRMT6	For	5’-TCCTGCCGGGACCAGTGGAG-3’
	Rev	5’-TTGGTTCGCGCGTGGAGGAC-3’
AURKC	For	5’-CAGCCACGGCTGCTCACGAC-3’

Supplementary Table 3: Human gene specific primer sequences.

	Rev	5’-GCTGTTTGGTTTGCTGTAGCCACT-3’
MUC4	For	5’-AGGCGTTCTTATACCACGTTC-3’
	Rev	5’-TGTAGCCATCGCATCTGAAG-3’
MUC1	For	5’-ACTTCTGCCAACTTGTAGGG-3’
	Rev	5’-TGAGAAGTGTCCGAGAAATTGG-3’

Supplementary Table 4: Mouse gene specific primer sequences.

Gene Name	Primer sequence	
Mouse Muc4	For	5’-GAGGGCTACTGTCACAATGGAGGC-3’
	Rev	5’-AGGGTTCCGAAGAGGATCCCGTAG-3’
Mouse Muc1	For	5’-CCCTACCTACCACACTCACGGACG-3’
	Rev	5’-GTGGTCACCACAGCTGGGTTGGTA-3’
Mouse Ncoa3	For	5’- AAGTACTGGCGTCACCCTTTGCC-3’
	Rev	5’- TGTGTCCACAGAAGCACTGCTCGC-3’

Supplementary Table 5: Primer pairs used for chromatin immune-precipitation and micrococcal nuclease assay.

Primer pair	Primer sequence	
Primers used for Chromatin Immuno-precipitation		
Primer (H3me3K4)	For	5'- CTCATTCACCCCATTCTGTCCCCATC-3'
	Rev	5'- GCTCCCCTCAATATGCCCATTTTCC-3'
Primer (NCOA3)	For	5'-GCGCTTTGTACTTCACAGGGCCATG-3'
	Rev	5'-CTTGTCAGACTTAGGACAACTAGGCTG-3'
Control Primer	For	5'-CACCCACCCATGCTAGTCTT-3'
	Rev	5'- ACCCTCAAACTCCTGGTCCT-3'
Primers used for Micrococcal Nuclease Assay		
Primer Pair I	For	5'-CTCATTCACCCCATTCTGTCCCCATC-3'
	Rev	5'-CAAGGAGTAGGCAACCGACGCTG-3'
Primer Pair II	For	5' GCGCTTTGTACTTCACAGGGCCATG-3'
	Rev	5'-GCTCCCCTCAATATGCCCATTTTCC-3'