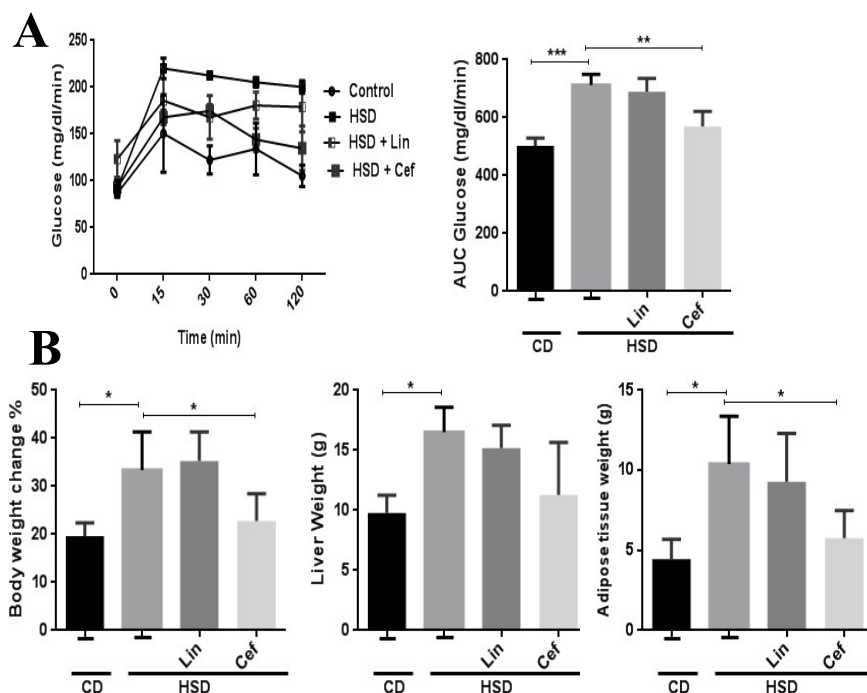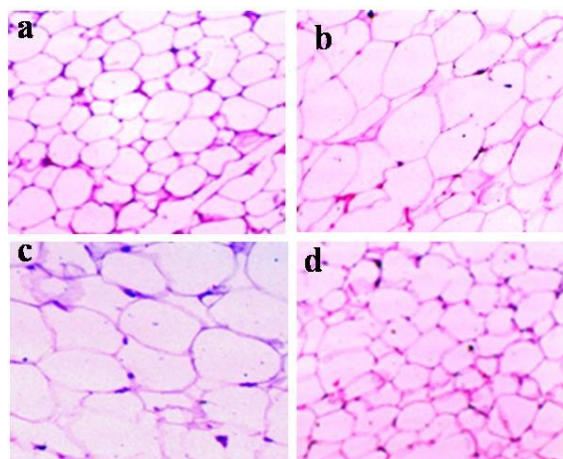## Supplementary Figures

Figure S1: Effect of gut microflora modulation on physiological parameters and OGTT

The Effect of gut microflora modulation on OGTT and physiological parameters after 12 weeks of experimental period (A) OGTT assay graph and Area under curve (AUC) of glucose for all the experimental animals (B) Effect on body weight, adipose tissue weight and liver weight. Data are presented as means with SD (n=4). Performed One way Anova using graphpad prism 6 where * presents $p<0.05$, **$p<0.01$ and ***$p<0.001$. CD, control diet group; HSD, high sucrose fed group.

Figure S2: Effect of gut microflora modulation on adipose tissue histology

Effect of gut microflora alteration on adipose tissue histopathology: Effect of altering the gut microflora using spectrum specific antibiotics was studied on adipose tissue histopathology (a) CD (b) HSD (c) Linezolid along with HSD (d) Cefdinir along with HSD

Supplementary tables

Table S1: Experimental Diet Composition

Ingredients (%)	Control diet (100 g)	High Sucrose diet (100 g)
Starch	65	0
Sucrose	0	65
Casein	20	20
Groundnut Oil	5	5
Wheat Bran	5	5
Mineral Mix	3.5	3.5
Vitamin Mix	1	1
D-Methionine	0.3	0.3
Choline Chloride	0.2	0.2

Table S2: 16S rRNA gene specific primers for bacterial quantification

Primers	Orders	Sequence (5'-3')	Amplicon size (bps)
		Phylum	
Firmicutes	Forward	5'-ATGTGGTTTAATTCGAAGCA-3'	126
	Reverse	5'-AGCTGACGACAACCATGCAC-3'	
Bacteroidetes	Forward	5'-CATGTGGTTTAATTCGATGAT-3'	126
	Reverse	5'-AGCTGACGACAACCATGCAG-3'	
Proteobacteria	Forward	5'-CATGACGTTACCCGCAGAAGAAG-3'	195
	Reverse	5'-CTCTACGAGACTCAAGCTTGC-3'	
		Genus	
Lactobacilli	Forward	5'-TGGAAACAGRTGCTAATACCG-3'	224
	Reverse	5'-GTCCATTGTGGAAGATTCCC-3'	
Bifidobacteria	Forward	5'-GCGTGCTTAACACATGCAAGTC-3'	136
	Reverse	5'-CACCCGTTTCCAGGAGCTATT-3'	
Clostridia	Forward	5'-GCACAAGCAGTGGAGT-3'	239
	Reverse	5'-CTTCCTCCGTTTTGTCAA-3'	
Escherichia	Forward	5'-CATGCCGCGTGTATGAA-3'	126
	Reverse	5'-CGGGTAACGTCAATGAGC-3'	

Table S3: mRNA specific primers for gene expression analysis

Primers	Accession Number	Strand	Sequence (5'-3')	Amplicon size (bp)
Tlr2	NM_198769	Forward	5'-TGCAGAGCAACGATGGAGAAA-3'	222
		Reverse	5'-ACAGCAGCGTCAGGGTGAAG-3'	
Tlr4	NM_019178	Forward	5'-GGCTGTGGAGACAAAAATGACCTC-3'	272
		Reverse	5'-AGGCTTGGGCTTGAATGGAGTC-3'	
Nlr1	XM_575485	Forward	5'-GCTCATCCGGACCAAAACTA-3'	189
		Reverse	5'-CTGCCCAGGTTTTCATTGTT-3'	
Nlr2	XM_226330	Forward	5'-ATCCCTCGGTTACTATGTTG-3'	241
		Reverse	5'-GCTTCCTGAATACTCCTCCT-3'	
Nf-κB	NM_199267.2	Forward	5'-CCCCACGAGCTTGTAGGAAAG-3'	130
		Reverse	5'-CCAGGTTCTGGAAACTGTGGAT-3'	
Glut4	D28561.1	Forward	5'-GGGCTGTGAGTGAGTGCTTTC-3'	150
		Reverse	5'-CAGCGAGGCAAGGCTAGA-3'	
Glp1	NM_012728.1	Forward	5'-TCTCTTCTGCAACCGAACCT-3'	350
		Reverse	5'-CTGGTGCAGTGCAAGTGTCT-3'	
Gpr43	U92802.1	Forward	5'-TCACCTGGATGAGCTTCGAC-3'	359
		Reverse	5'-GACAAGGACCACTGCGAAGA-3'	
Tnf-α	NM_012675.3	Forward	5'-TCGAGTGACAAGCCTGTAG-3'	230
		Reverse	5'-GTTGGTTGTCTTTGAGATCC-3'	
Il6	NM_012589.2	Forward	5'-GTTGCCTTCTTGGGACTGATG-3'	256
		Reverse	5'-GGGAGTGGTATCCTCTGTGAAGTCT-3'	
β-actin	NM_031144.3	Forward	5'- GGAATCCTGTGGCATCCATGAAAC-3'	315
		Reverse	5'-TAAAACGCAGCTCAGTAACAGTCCG-3'	