Supplementary Material

Supplementary Table 1:

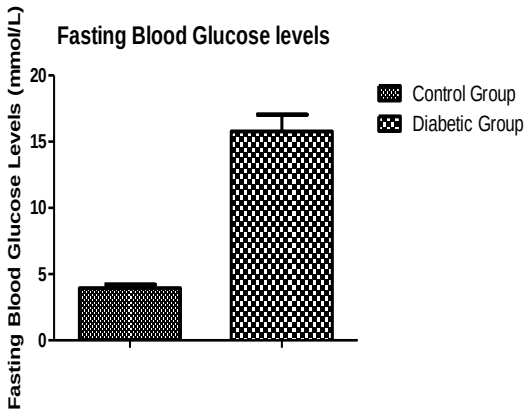
Gene	Sequence of Primers	Length of PCR Product (bp)
β- Actin	F- 5'-GCCTTCCTTCTTGGGTATGG-3'	112
	R- 5'-CAGCTCAGTAACAGTCCGC-3'	
APP 770	F- 5'-TGCTCTGAACAAGCCGAGACC-3'	144
	R- 5'-CATGCAGTACTCTTCCGTGTC-3'	
DCX	F-5'-ATGCAGTTGTCCCTCCATTC-3'	182
	R- 5'-ATGCCACCAAGTTGTCATCA-3'	
Ki67	F-5'-CTGCCTGCGAAGAGAGCATC-3'	81
	R-5'-AGCTCCACTTCGCCTTTTGG-3'	
NeuN	F-5'-GGCAATGGTGGGACTCAAAA-3'	65
	R-5'-GGGACCCGCTCCTTCAAC-3'	

Supplementary Table 1 Primer Sequences used for Expression Analysis of Beta-Actin, APP 770, DCX, Ki67 and NeuN.

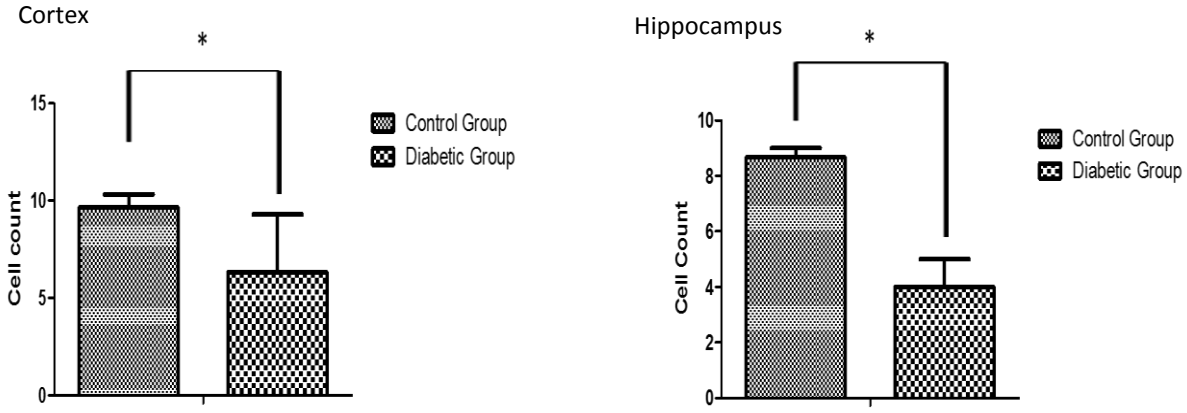
Supplementary Table 2: Fasting Blood glucose levels of mice (mmol/L)

Control group	Diabetic group
4.820	12.5430
4.500	14.7620
3.830	18.0370
4.717	18.5920
4.050	18.4250
4.320	25.1400
3.885	15.0950
2.610	16.3160
2.775	16.6490
	17.7040
	20.8670

Supplementary Table 2: Data of Fasting blood glucose levels (FBG) (mmol/L) of STZ- induced diabetic group and control group.

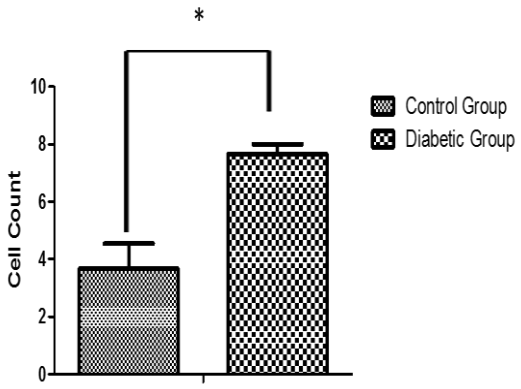


Supplementary Figure 1: Fasting blood glucose levels (FBG) (mmol/L) of STZ- induced diabetic group as compared to control group. The FBG levels of animals were assessed after eight days of STZ injection using On-Call® EZ II blood glucose monitoring system (Blood ACON International, USA). Mice with FBG levels higher than 12 mmol/L were considered diabetic (Dong et al., 2013) and used for further analysis.



Supplementary Figure 2: Quantitative analysis for cell count was performed in cortex and hippocampus. The analysis was carried out in an area of 3000 μm^2 from three randomly selected sites in both cortex and hippocampus. Following that, average values were calculated and plotted. (a) H&E staining revealed a significant reduction in cell density in the cortical region of diabetic group (25.00 ± 2.51) as compared to control group (39.67 ± 3.38, $p < 0.02$). (b) Reduction in the cell density was also observed in the hippocampus of diabetic group (4.00 ± 1.00) as compared to control group (8.66 ± 0.33), reduction was found statistically significant ($p < 0.01$).

Cell Count Immunostaining



Supplementary Figure 3: Significant increase in protein S-nitrosylation was observed in diabetic group (7.66 ± 0.33) as compared to control group (3.66 ± 0.88, $p < 0.01$). Quantitative analysis for cell count was performed in cortex and hippocampus. The analysis was carried out in an area of 3000 μm^2 from three randomly selected sites in both cortex and hippocampus. Following that, average values were calculated and plotted.