Figure Legends

Figure 73
Confocal image of 5-HT$_{2A}$ receptors in the cerebral cortex of control and experimental rats using immunofluorescent 5-HT$_{2A}$ receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HT$_{2A}$ receptors in the cerebral cortex of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows 5-HT$_{2A}$ receptors expression.

Figure 74
Confocal image of 5-HTT receptors in the cerebral cortex of control and experimental rats using immunofluorescent 5-HTT receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HTT receptors in the cerebral cortex of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows 5-HTT receptors expression.

Figure 75
Confocal image of mGluR5 receptors in the cerebral cortex of control and experimental rats using immunofluorescent mGluR5 receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of mGluR5 receptors in the cerebral cortex of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows mGluR5 receptors expression.

Figure 76
Confocal image of 5-HT$_{2A}$ receptors in the brain stem of control and experimental rats using immunofluorescent 5-HT$_{2A}$ receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HT$_{2A}$ receptors in the brain stem of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows 5-HT$_{2A}$ receptors expression.
**Figure 77**

Confocal image of 5-HTT receptors in the brain stem of control and experimental rats using immunofluorescent 5-HTT receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HTT receptors in the brain stem of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. ——— in white shows 5-HTT receptors expression.

**Figure 78**

Confocal image of mGluR5 receptors in the brain stem of control and experimental rats using immunofluorescent mGluR5 receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of mGluR5 receptors in the brain stem of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. ——— in white shows mGluR5 receptors expression.

**Figure 79**

Confocal image of 5-HT$_{2A}$ receptors in the cerebellum of control and experimental rats using immunofluorescent 5-HT$_{2A}$ receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HT$_{2A}$ receptors in the cerebellum of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. ——— in white shows 5-HT$_{2A}$ receptors expression.

**Figure 80**

Confocal image of 5-HTT receptors in the cerebellum of control and experimental rats using immunofluorescent 5-HTT receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HTT receptors in the cerebellum of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. ——— in white shows 5-HTT receptors expression.
Figure 81

Confocal image of mGluR5 receptors in the cerebellum of control and experimental rats using immunofluorescent mGluR5 receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of mGluR5 receptors in the cerebellum of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows mGluR5 receptors expression.

Figure 82

Confocal image of 5-HT$_{2A}$ receptors in the hippocampus of control and experimental rats using immunofluorescent 5-HT$_{2A}$ receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HT$_{2A}$ receptors in the hippocampus of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows 5-HT$_{2A}$ receptors expression.

Figure 83

Confocal image of 5-HTT receptors in the hippocampus of control and experimental rats using immunofluorescent 5-HTT receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HTT receptors in the hippocampus of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows 5-HTT receptors expression.

Figure 84

Confocal image of mGluR5 receptors in the hippocampus of control and experimental rats using immunofluorescent mGluR5 receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of mGluR5 receptors in the hippocampus of diabetic rats which was reversed to control with *Aegle marmelose* and insulin treated alone and in combination with pyridoxine treatment. in white shows mGluR5 receptors expression.
Figure 85

Confocal image of 5-HT_{2A} receptors in the pancreas of control and experimental rats using immunofluorescent 5-HT_{2A} receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of 5-HT_{2A} receptors in the pancreas of diabetic rats which was reversed to control with Aegle marmelose and insulin treated alone and in combination with pyridoxine treatment. ––– in white shows 5-HT_{2A} receptors expression.

Figure 86

Confocal image of mGluR5 receptors in the pancreas of control and experimental rats using immunofluorescent mGluR5 receptor specific primary antibody and FITC as secondary antibody. There was a significant decrease of mGluR5 receptors in the pancreas of diabetic rats which was reversed to control with Aegle marmelose and insulin treated alone and in combination with pyridoxine treatment. ––– in white shows mGluR5 receptors expression.

Figure 87

Confocal image of calcium release from the pancreas using Fluo-4 significantly increased the calcium release from pancreatic islets of diabetic rats which was reversed to near control after treatment with insulin and Aegle marmelose alone and in combination therapy with pyridoxine ––– in white shows calcium release.