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not affect NA and GLU level in stressed animals. It may be concluded that increased release of neurotransmitters in naive rats seems to be mediated by 5-HT2A receptor that could be dysfunctional in stressed animals. The recruitment of 5-HT1A receptors under stressed conditions may be responsible for inhibitory psilocybin effect on DA, 5-HT and GABA release.

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POSTER SESSION III – BILATERAL BRAIN-BODY INTERACTIONS

27th April, 2024 (Saturday), 14:00–15:15

GASOCRINE SIGNALING *VIA* GASORECEPTOR PROTEINS

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I recently proposed gasocrine signaling for gas-gasoreceptor protein interactions-driven cellular signalling. To investigate gasocrine signaling, there is a critical need to identify gasoreceptors for the essential gasotransmitters like O2. Based on existing scientific literature, I propose that heme-based O2 sensors, featuring diverse signaling domains across genera, should be explicitly designated as O2 gasoreceptors. Acknowledging that O2 gasoreceptors are likely to belong to multiple protein classes with diverse signaling domains and pathways will facilitate a comprehensive search for O2 gasoreceptors in all organisms and across every cell type. This approach will broaden the investigation beyond specialized tissues or cells, encompassing a systemic exploration.

ON METABOLIC DETERIORATIONS IN PENTYLENETETRAZOL (PTZ)-KINDLED RATS REVEALED WITH GLUCOSE TOLERANCE TEST AND LIVER HISTOLOGY

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Manifestations of metabolic syndrome (MS) manifestations in chronic epilepsy models were in the scope of the investigation. Kindling was induced by daily injections of PTZ at a dose of 35 mg/kg i.p. for three weeks. Those animals with fully developed generalized seizures were used for investigations. Glucose and insulin levels were not different from control rats, while PTZ-kindled rats demonstrated decreased tolerance to glucose tests. Pentoxiphylline administration(100 mg/kg, i.p., during a week daily) caused partial restoration of glucose tolerance test and the inhibition of kindled seizures. On H&E stained liver of PTZ-kindled rats, the hepatocytes with normal vesicular nuclei were present with a deep acidophilic cytoplasm in some cells. The binucleated hepatocytes were scarcely present. The focal aggregation of mononuclear inflammatory cells between the hepatocytes with deep acidophilic cytoplasm and small, shrunken, deeply stained nuclei was seen. Also, the sparse presence of the hypertrophied intra-sinusoidal von Kupffer cells between the hepatocytes was registered. In the PTZ-treated liver tissues, some central fatty deposits and additional smaller microdeposits around the hepatocytes with increased infiltration of von Kupffer cells encroaching on those fatty lipid deposits were determined. The data favored moderate functional and morphological deteriorations in PTZ-kindled rats corresponding to metabolic syndrome.

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