

- ❖ Name & Designation : Mr. Yeshwant Kurhe, JRF..
- ❖ Address : Pharmacy, BITS, Pilani, Rajasthan-333031.
- ❖ Name of the International Conference/
Seminar/Symposium/Workshop : 9th Forum of Neurosciences (FENS-2014)
- ❖ Title of the abstract accepted : Antidepressive-like effect of a novel 5-HT₃
receptor antagonist (4a) against depression
co-morbid with obesity in mice subjected to
chronic stress.
- ❖ Date & Venue : 5-9th July 2014. Milan, Italy.
- ❖ Money sanctioned : Rs 83,327/-
- ❖ Money reimbursed : Rs 65,073/-

Participation Report

The Conference named 9th FENS FORUM OF NEUROSCIENCE; MILAN, ITALY was organized by Federation of European Neuroscience Societies (FENS) at Milan, Italy on July 5 – July 9, 2014.

The Scientists, Speakers and the delegates were almost from all over the world representing their respective country and institute as well.

In all there were around 5,000 posters and 9,000 delegates attending and presenting in FENS FORUM OF NEUROSCIENCE CONFERENCE, Milan, Italy, 2014.

Number of sessions for all five days from July 5 – July 9, 2014 were as following in brief:

Plenary Lecture 8:30 – 9:30

Morning sessions, 09:45 – 11:15

Afternoon sessions, 15:45 – 17:15

Poster session 1: 11:15 – 13:15

Poster session 2: 13:30 – 15:30

Subjective Lecture 15:45 – 17:15

Plenary Lecture 17:30 – 18:30

Networking session 18:45 – 20:30

New Development presented at the Training/Workshops

In have presented a research based on my PhD work mentioning “Depression co-morbid with Obesity”. Depression currently stands 4th and by 2030 it seems to stand 2nd in the leading disease burden on humans worldwide. Obese individuals are twice susceptible to become depressed than non-obese subjects. They share some common pathological hallmarks like: Sleeping pattern, Behavioral aspects, sedentary life style, HPA-axis dysregulation, inflammatory cytokines, and Serotonin dysregulation. In last decade 5-HT₃ receptor antagonist has been reported for antidepressant-like effect in our and several other labs. They act by allosteric mechanism to increase the serotonergic neurotransmission in brain and hence, control depression.

Serotonin on the other hand plays an important role in the regulation of plasma glucose through insulin. Hence, in our study we developed a model of obesity in mice by feeding them with high fat diet (HFD) for 14 weeks. Further, we used chronic stress model to induced depression in the obese animals. The chronic therapeutic treatment we used was a novel 5-HT₃ receptor antagonist (4a), synthesized in-house by the Medicinal Chemistry group of our Institute (BITS-Pilani). Results interpreted that, (4a) significantly reversed the behavioral alterations in sucrose preference test, forced swim test and tail suspension test and further regulated the plasma glucose, plasma total cholesterol and plasma triglycerides in obese mice. Hence, on the basis of preliminary findings we concluded that, this could be the “altered plasma glucose or insulin resistance” holding one of the pathologic links for such co-morbid disorders. Our study has focused one of the major issue with respect to the public health care and social life.

New Development resulting from the Training/Workshops (200 words)

The conference named 9th FENS FORUM OF NEUROSCIENCE, MILAN, ITALY JULY 5 – JULY 9, 2014 was exceptionally good experience to learn many new aspects of research in the field of neuroscience. The speakers were absolutely superb and really showed some challenging finding in neuroscience. The exhibitions displayed various novel and simple apparatus and techniques that can be applied for experimentation on animals (in-vivo and in-vitro).

With respect to our own research many Scientists showed a link for Neuroinflammation in Depression co-morbid with obesity. This could be interesting findings for us using serotonergic modulators for such co-morbid disorders and screening neuroinflammation. Our future plan of work will stick to study neuroinflammation, histopathology of various regions of brain and neuroimaging that could possibly take us to an interesting conclusion.

Participant’s contribution to the Training/Workshops (100 words)

By attending and presenting the conference of Neuroscience named as 9th FENS FORUM OF NEUROSCIENCE, 2014 it was overall a very good experience with respect to practical and theoretical aspects in the field of Neuroscience research.

Many new techniques were demonstrated through various presentations by worldwide popular Scientists in the respective fields. The interaction and networking session was also very fabulous as all the delegates got an opportunity to discuss good Neuroscience with each other that would surely benefit each one of us. Poster session was one of the important aspects and interesting session to attend in conference. Difference authors representing there research work in Neuroscience worldwide showed some really amazing work.