

**Subject:** Khanna's Magic Wand  
**From:** "Mohamed Helmy" <[ungag@irelynn.org](mailto:ungag@irelynn.org)>  
**Sent:** 4/28/2023 1:10:48 PM  
**To:** [neuralcircuits@frontiersin.org](mailto:neuralcircuits@frontiersin.org);

Dear Frontiers in Neural Circuits

[1] This concerns the article:

Ibrahim, Khairunisa Mohamad, Mohammed Zacky Ariffin, and Sanjay Khanna. 2021. "Modulation of Septo-Hippocampal Neural Responses in Anesthetized and Behaving Rats by Septal AMPA Receptor Mechanisms." *Frontiers in Neural Circuits* 15 (June): 663633. <https://doi.org/10.3389/fncir.2021.663633>.

**Is it a joke?** It is not funny.

[2] Here is what the authors claim they did after receiving approval from a 1983 paper, as well as *National University of Singapore*:

- Inserted a 'carbon-fiber glass microelectrode' of unknown make and tip diameter (or else known only in Khanna articles) into CA3.
- 'Split' the signal from that unknown electrode 'into two'.
- Amplified that signal 500x and all others but not reported using a 'Grass amplifier, Astromed Inc, USA'. The manufacturer writes about this amplifier that "...It is ideal for in-vitro tissue bath studies, cardiovascular parameters, pulmonary mechanics, even bioelectric signals such as EEG, ECG and EMG...".
- Note that the animal was 'connected to an amplifier at one end and to the other end *via* a commutator'.
- Inserted a 'Model NE-100, David Kopf, USA stainless steel concentric bipolar electrode' into CA3. This also does not exist or else exists only in Khanna articles (the electrode, not the CA3). This was for 'stimulation'.
- Also stimulated the rostral pontine oralis nucleus using the same non-existent electrode as that in CA3. Also to stimulate theta activity. In behaving and anesthetized animals, but it was measured in one and not also the other.
- Also inserted 'electrodes constructed by twisting a pair of stainless steel wires together' also in CA1, spaced 0.5-1 mm apart in the *vertical* direction. The free ends were soldered

to a gold-plated male connector including a ground screw electrode.

- Also inserted a receptacle for a 'glutamate-sensitive biosensor' connected to a 'wireless potentiostat placed inside the receptacle secured previously during surgery...signalled to Sirenia software *via* Bluetooth [so that] changes in glutamate concentration around the electrode were transduced into electrical current'.
- Put the animal in an open field, 'restrained it lightly' microinjected it with 0.5  $\mu\text{l}$  10 or 20  $\mu\text{g}/\mu\text{l}$  NBQX. Into brain. And formalin into paw.

[3] Why? Why would anyone pretend to have done all that? The methods described are not repeatable for each and every method, except in articles by Khanna. Still, why, in Khanna's articles, would one want to recreate such an elaborate set of imagined procedures? I asked an AI ([not Irelynn](#)). Here is the reponse:

Researchers conducted a study to examine how the blocking of AMPA receptors impacted septal-hippocampal theta activity through intraseptal microinjections of an antagonist. The results of the study showed that the microinjection of the antagonist, NBQX, had an effect on glutamatergic transmission in the septal region, which in turn impacted theta activity in the hippocampus. Ultimately, this study provides insight into the complex relationship between glutamatergic signaling and neural activity in the brain.

Yes. Exactly.

One particular figure astounded me, I mean they are all *fantastic* but one in particular really blew my mind, so I asked for a comment:

The study analyzed the time course of normalized glutamate current in response to hind paw injection of saline or formalin, and the average change in glutamate concentration at selected time points. The results showed a significant increase in glutamate current after formalin injection compared to saline, with peak levels reached at 20 minutes post-injection. Additionally, the concentration of glutamate also increased in response to formalin, with a significant difference observed at 20 and 30 minutes post-injection compared to saline. These findings suggest that formalin injection induces an increase in glutamate release in the spinal cord, which may contribute to pain hypersensitivity.

Wow. Read the last sentence again. I think I need a dose of NBQX, but intra-peritoneal please. Except in  $\mu\text{l}$  of  $\mu\text{g}/\mu\text{l}$ .

[4] Assuming you have not sold your soul to the devil and/or Singapore, may you please ask your reviewers to check the existence of apparatus and the remote possibility of their

application to a method prior to publication? It is important, there are students (academic children) reading these obscenities.

[5] I see you have Georgy on board still. This message is already published on [www.nanyangscandal.com](http://www.nanyangscandal.com), along with a little rhyme.

Ta,  
Mohamed Helmy  
MD, PhD

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