

## Commentary

Is there evidence for a cGMP-gated cation channel in the photosensory membrane of *Sepia*?Re publication: 'Evidence for a cGMP gated cation channel in photoreceptor cell membranes of *Sepia officinalis*'

by Berthold Huppertz, FEBS Letters 364, 189–192 (1995)

Dr. Huppertz claims that he has established evidence for a cGMP-gated cation channel in the photosensory membrane of the cuttlefish using the neutral red method as described by Schnetkamp [1]. We think this is not justified. The manuscript of Dr. Huppertz was published without permission or even knowledge of our institute; support by the Deutsche Forschungsgemeinschaft and technical assistance are not mentioned. The work is concerned with an intriguing problem which turned out to be very difficult to solve although it seemed to be fairly straightforward. Several laboratories are working on this, my lab since 1984, so far without being able to come up with a reliable answer whether the photosensory membrane of cephalopods contains a functional cN-gated cation channel which can be reconstituted in phospholipids.

The paper is based on experiments which were done by Dr. Huppertz in our institute as part of my project 'Transduktionskaskade' (supported by the DFG Grant Sti 16/17-1) in 1993 while he was my co-worker. The electron microscopical part was done by a technical assistant of mine, Marianne Dohms. Earlier versions of the manuscript with me as a coauthor were sent to three journals for publication and were rejected every time.

After Dr. Huppertz had left my lab at the end of 1993, two other co-workers of mine, Dr. Hans Jarminowski and Dipl. Biol. Karin Kosfeld, continued the work on the project. They repeated the Neutral red – cGMP experiments in exactly the same way as Dr. Huppertz had instructed them, and made several additional control experiments. They were unable to verify Dr. Huppertz' results. I notified Dr. Huppertz and the *Zeitschrift für Naturforschung*, to which the manuscript had been sent in the meantime, that we could not reproduce the submitted results and that I therefore withdrew from the manuscript. Dr. Huppertz did not respond to my letter. Instead, he

sent a changed version of the manuscript without notifying me or any other person from our institute to FEBS Letters for publication. (It contains a newly included paragraph on electron-microscopy with an incorrect description of the procedure; no tannic acid was used.)

The reasons why we think these results of Dr. Huppertz should not have been published are:

1. The absorption changes due to the addition of cGMP are very small and not convincingly different from those due to the addition of plain buffer solution. (In older versions of Dr. Huppertz' manuscript the effect of buffer addition was shown. In the published version this part of Fig. 2 is omitted.)

2. In our hands the neutral red signals evoked by application of cGMP to photosensory membrane of old or fresh *Sepia* were not significantly different from those evoked by cAMP or by plain buffer solution.

3. Addition of cGMP or plain buffer solution to suspensions of phospholipid vesicles without any proteins evoked neutral red signals which were not significantly different from those with vesicles containing proteins of the photosensory membrane of *Sepia*.

## References

- [1] Schnetkamp, P.P.M. (1990) *J. Gen. Physiol.* 96, 517–534.

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20.7.1995