Remark from the Managing Editor

When approached by Drs. Chow and Peachey on this delicate matter, the Managing Editor asked for a reply from Dr. Zrenner and his collaborators. Now you will find both letters side by side.

The Managing Editor does not feel responsible for this problem because he could by no means have been aware of the points raised in these letters.

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The Subretinal Microphotodiode Array Retinal Prosthesis

To the Editor:

We are concerned to read the recent article by Zrenner et al. [1]. While developing an artificial retina is a laudable goal, the publication of this article raises serious questions. The fundamental concern that we have is that the article creates the overall impression that the concept of placing a semiconductor-based microphotodiode array implant into the subretinal space, along with the considerable amount of research surrounding these implants' initial development and testing in animals, are original to these authors. This is not the case. Instead, this approach towards a retinal prosthesis was initiated by our group in the late 1980s, and in 1994 and 1995 was disclosed by us to Dr. Zrenner and most of the authors of his article [1] and others in his group, for the pur-

pose of a proposed collaborative grant application to the German government, after they had signed confidential nondisclosure, nonuse agreements. After we assisted Dr. Zrenner and members of his group in receiving considerable funding from their government, based on our group's research, the Dr. Zrenner-led group terminated discussions with us. However, while discussions were terminated, Dr. Zrenner and certain members of his group nevertheless remain bound by their various agreements, and all are bound by standard codes of ethics and scientific conduct not to claim (either explicitly or impliedly) these basic ideas and developments as their own.

This approach to the development of retinal prosthesis has been the subject of a series of patents

[2–4], abstracts [5–8], grant applications [9, 10], a prepublication manuscript [11], and research report [12] authored by Dr. Alan Y. Chow and his research associates. The above information was substantially presented to Dr. Zrenner and members of his group in 1994 and 1995 as well as at several invited lectures at the home department of Dr. Zrenner [13]. The omission of any citation to this body of materials, save a single ARVO abstract [5] in passing, creates the overall impression that Zrenner et al. [1] are primarily responsible for the concepts and developments contained in this body of materials and described in the article [1]. It is also noteworthy that Zrenner et al. [1] fail to give credit to a larger body of work which was instrumental in the development of

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the subretinal implant [see ref. 14]. These omissions do not appear necessitated by any restrictions of publication – other articles within the same special issue of *Ophthalmic Research* provide a more balanced review of the literature.

The article by Zrenner et al. [1] contains much discussion of different considerations taken in the design of the subretinal implant that Zrenner et al. [1] are testing. How-

ever, each of these considerations was substantially introduced and dealt with in the materials of Dr. Chow and his group cited above, or in verbal disclosures made by Dr. Chow to Dr. Zrenner and members of his group. In fact, the final design arrived at by Zrenner et al. [1] is a virtual replica of the chip that had been fabricated some years earlier by Dr. Chow [11], samples of which were lent to Dr. Zrenner. It is no

coincidence that both chips are circular, are 3 mm in diameter, contain 20- μ m by 20- μ m subunits, have a common electrical ground, and respond electrically into the infrared.

In sum, Zrenner et al. [1] have published a paper in which they imply authorship to ideas and developments that they know are not their own. The scientific community cannot condone these acts.

Alan Y. Chow, Neal S. Peachey

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