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Reply to McLennan's comment

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After noticing the 'Comment' by Dr. McLennan, we wish to express the following:

(1) Three years ago, because of our interest in nucleotide and dinucleoside polyphosphate metabolism and function in chromaffin cells [1–6], we decided to try a fluorimetric approach to overcome some difficulties arising from the irregular commercial supply of radioactive AP_4A and AP_3A and the serious problems in the handling of radioisotopes in our University.

(2) Our reference points in the literature related to the synthesis and applications of etheno- derivatives of adenosine nucleotides were the articles from the Leonard group and the extensive review by this author [7]. These suggested to us the possibility of synthesizing fluorogenic etheno- derivatives of diadenosine polyphosphates by chloroacetaldehyde modification. Throughout '89–'90 we obtained the corresponding diethenoadenosine polyphosphates (2–6 phosphoryl groups) to use them as fluorogenic substrates for diadenosine polyphosphate splitting activities from adrenochromaffin tissue ([8–10]; and unpublished results).

(3) Lamentably on our part, it results to be now evident that our bibliographical information was incomplete and we were unaware of previous reports on the synthesis of etheno- derivatives of diadenosine polyphosphates [11–13] that could not be included in the Leonard review. In fact, we did not have knowledge of these reports until we recently received a note from Dr. Shugar after our article [9] was published in FEBS Letters. As I recognized in the answer to Dr. Shugar: '... if we had known of your article, we would have saved a lot of time and our FEBS Letters article would have been written in a very different form.....'. A very different article could have been written putting emphasis on other results rather than on the synthesis and properties of diethenoadenosine tetraphosphate and, of course, including the pertinent acknowledgements to those involved in pioneering works. It is, however, noteworthy that these previous reports [11–13] have been, at least apparently, ignored as they did not appear listed in most of articles dealing with the biochemistry of diadenosine polyphosphates.

In any case, we have to conclude that this experimental approach was believed to be novel – and for this reason submitted for publication to FEBS Letters; however, it was not. This was caused by an unfortunate and unintentional error in which the previous reports [11–14] were not noticed in our bibliographical search.

Although, of course, considerable care should be taken to avoid this kind of error, it may be sometimes difficult to achieve it. In the same way, in a recent and interesting paper on the synthesis of azido derivatives of Ap_3A and Ap_4A and their applications as photoaffinity labels for diadenosine polyphosphate binding proteins, e.g. adenosine kinase [15], the author of the comment himself appears to be unaware of a previous (1985) report describing the potent inhibition of adenosine kinase by Ap_4A and Ap_5A but not by Ap_3A [1], omitting to list it in favour of later work by others.

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