

By Registered K.M.(Air Mail)

Dr. (Miss) Krishnaja, A.P.
Department of Zoology,
The Institute of Science,
15, Madame Cama Road,
Bombay-400 032 (INDIA)

April 4, 1981.

To:
Prof. F.H. Sobels,
Managing Editor,
Mutation Research,
Sylvius Laboratories,
State University of Leiden,
Laeden, The Netherlands.

Sir,

I am sending herewith in triplicate a paper titled
" Induction of Chromosome aberrations in fish (Boleophthalmus
dussumieri) following in Vivo exposure to Mitomycin C and
heavy metals Mercury, Selenium and Chromium"along with two
text figures and hope this will find a place in your esteemed
journal.

Thanking you.

Yours truly,


(KRISHNAJA A.P.)

Encl.: as above.

MUTATION RESEARCH

Leiden, 31 August 1981

Dear Krishnaja,

Herewith enclosed I am sending you the reports from the referees who were requested to review your paper submitted for publication in Mutation Research. Your paper has been recommended for acceptance, but before doing so, I would like to give you the opportunity to incorporate a number of changes in the light of the referees' comments.

I am looking forward to receiving the revised version of your paper at your earliest convenience, so as to avoid any unnecessary delay in its appearance.

Sincerely yours,
F. H. Sobels
Managing Editor

Department of Radiation Genetics
and Chemical Mutagenesis
Sylvius Laboratories
Wassenaarseweg 72
2333 AL LEIDEN
The Netherlands

Review of "Induction of Chromosome Aberrations in Fish Boleophthalmus
Dussumieri following In Vivo Exposure to Mitomycin C and
Heavy Metals Mercury, Selenium and Chromium" By Krishnaja,
A.P. and Rege, M.S.

This paper should be accepted for publication in Mutation Research
after a small number of minor changes are made.

1. Insert "If" as the first word in the last sentence of the abstract.
2. List the abbreviations used.
3. Provide figure legends.
4. The last line on p. 3 should read (1980). 72 hours after treatment
an injection....
5. Reference "APHA et al" is not the correct format. Do not abbreviate
American Public.....(etc), and "et al" is not appropriate.
6. Results, p. 6, l. 8. I do not understand what "Fragments were
usually never seen in association with breaks....and hence [were?]
scored separately". How can one have a fragment without a break?

REVIEW OF THE PAPER ENTITLED "INDUCTION OF CHROMOSOME ABERRATIONS IN FISH
BOLEOPHTHALMUS DUSSIMIERI FOLLOWING IN VIVO EXPOSURE TO MITOMYCIN C AND HEAVY
METALS MERCURY, SELENIUM AND CHROMIUM" BY KRISHNAJA AND REGE.

Ordinarily a paper on the effects of genotoxicants on the chromosomes of a fish should be published since there has been so little work done to date in this field. However, the paper as written cannot be accepted. The paper is extremely wordy, and a great deal of revision is necessary to turn it into a well-written scientific article.

To begin with, much of the introduction is paraphrased from other works without giving proper citations. The Material and Methods section is confusing, too long, and imprecise. The types of aberrations scored are not clearly defined, and the different types are lumped together into one category. Furthermore, it is not clear why the mitotic index would increase with dose of the mutagen and at the same time cause a reduction in the number of metaphases that are scored for damage.

A major flaw in the experimental design is that the fish were exposed to the mutagenic agents for 75 hrs. Since the authors have no idea of the cell cycle time, they do not know at what stage of the cell cycle the cells were exposed or how many rounds of replication took place after exposure. Thus, they may not be able to tell if what they scored as isochromatid damage was in fact chromosome damage. In addition the presentation of the data in the tables is confusing, and the methods of statistical analyses is inadequately described.

Finally, the quality of the photographs are not adequate for publication, and I would disagree with some of the descriptions of the aberrations shown.

Thus, I would not recommend publication of this article. Although there is publishable material in this paper, it must be extensively rewritten, shortened, and put into a more acceptable form. The Tables and photographs must be redone.

Dr. Miss Krishnaja, A.P.,
Department of Zoology,
The Institute of Science,
15, Madam Cama Road,
Bombay 400 032.

September 27, 1981.

Prof. Dr. F. H. Sobels,
(Managing Editor,
Mutation Research),
Department of Radiation Genetics
and Chemical Mutagenesis,
Sylvius Laboratories,
Wassenaarseweg 72,
2333 AL LEIDEN.

Dear Prof. Sobels,

Thank you very much for your communication dated 31 August 1981, enclosing the reviews from two referees on our paper entitled "Induction of Chromosomes". I am extremely sorry for the delay in replying you as I was out of station.

I am sending herewith the revised manuscript based on the comments received (1 - 6). As regards point No. 6, what we really meant was breaks together with associated fragments were not noticed, except in severely damaged cells. However, to avoid confusion, this sentence has been deleted from the text.

Answers to the various points raised by the second referee are given below:

It may be mentioned that the statements made in the introduction, highlighting the importance of using fish as a model test system, have been properly cited with specific references.

"The material and methods section is confusing, too long and imprecise" - Unfortunately this is a general statement without pinpointing any specific instances. However, we have carefully gone through this section again and find that there is nothing superfluous and unclear. We are obliged to retain this in view of the fact that very little work has been done to this date in this field as also opined by the referee. In the absence of any standard methodology available (especially in the case of indirect exposure series) some of these details need to be mentioned. Hopefully this can serve as a base for future development of precise methods for screening of genotoxicants using fish.

We have scored gaps separately, and other aberrations grouped together in the manner other workers have reported in the past on fish chromosomes. The increase in mitotic index after exposure to mutagens has been already explained (vide - discussions in page No. 9 para 1 *lines 4*). Sticky effect in chromosomes, unfavourable disposition of chromosomes, severely damaged cells etc., may contribute to the reduction in the number of metaphases scored for damage at higher dose ranges.

As regards "A major flaw in the experimental design chromosome damage", the same has already been dealt with in the original manuscript itself (page No. 9 para 1 *lines 1-3*).
" " 12 para 1 *line 2*.

..... contd.

As there are no precise comments on any Tables or parts thereof, as well as the aberrations (photographs), it is difficult to bring in changes.

It appears to us that the data presented in the Tables are not unclear and the statistical analyses used are simple to be described in detail.

Unfortunately the photographs at this stage cannot be changed.

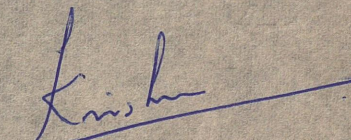
It is hoped that the explanations given above meet with your approval.

Awaiting to hear from you at an early date.

Thanking you,

Yours sincerely,

Encl: as above


Krishnaja, A. P.

MUTATION RESEARCH

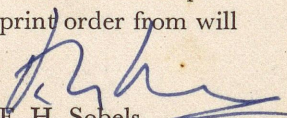
Leiden, 22 October

1981

This is to inform you that your manuscript entitled

"Induction of chromosome aberrations in fish *boleophthalmus dussumieri* following in vivo exposure to mitomycin C...etc."

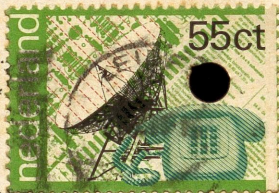
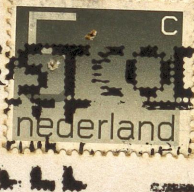
has been accepted for publication. The top copy of the manuscript is forwarded to the publishers. Printers proofs and reprint order form will be sent to you in due course.



F. H. Sobels
Managing Editor

ELSEVIER/NORTH-HOLLAND BIOMEDICAL PRESS
AMSTERDAM

POSTCARD



Dr. A.P. Krishnaja

Department of Zoology
The Institute of Science
15, Madame Cama Road
Bombay-400 032

Professor F.H.Sobels
Department of Radiation Genetics
and Chemical Mutagenesis
Sylvius Laboratories
Wassenaarseweg 72
2333 AL LEIDEN
The Netherlands

INDIA