

# correspondence

## The WHO and mosquitoes

SIR,—We have read with interest your editorial (July 31) on the allegations made by a section of the Indian press and the Public Accounts Committee of the Indian Parliament against the Delhi-based Research Unit on Genetic Control of Mosquitoes whose activities were jointly implemented and supervised by the World Health Organisation and the Indian Council of Medical Research (ICMR).

With regard to the technical aspects of this controversy, you have highlighted the crucial fact that the authors of the allegations failed to read the abundant literature issued by the research unit, either reports or publications, which were made freely available to them, and that they used logic so tenuous that it does not stand up to unprejudiced examination. We might add that they did not even take the trouble to discuss the controversial points with the many Indian scientists carrying out research at the unit.

We should like, however, to complement your analysis by supplying some additional information on other aspects of the controversy, for which the only documentation that you had was that presented by the authors of the allegations.

Dr Jayaraman's assertion that he was refused information on the project by the WHO because "it was sensitive to the Indian press" does not represent the truth. On the contrary, all co-operation was extended to him and a meeting was immediately arranged under the chairmanship of the Director-General of the ICMR with the Director of the National Institute of Communicable Diseases of India, the unit's Project Leader and Dr Pal of the WHO's Vector Biology and Control Unit at Headquarters. The Chairman invited Dr Jayaraman to raise any questions about the unit's research after he had a chance to see the special issue of the *Journal of Communicable Diseases* devoted to papers on the unit's work. It was most unfortunate that Dr Jayaraman never availed himself of this offer; had he done so, the fallacies in his subsequent published statements might have been avoided. You have also quoted Dr Jayaraman's allegation that he was "indirectly sounded out for a job as an Information Officer at WHO Headquarters", the implication being that this was done in an effort to appease him. No such offer was made

to him; what was offered was the full cooperation of the WHO information services in the preparation of his article. It is noteworthy that Dr Jayaraman did not make this allegation in the press, but only before the Parliamentary Committee.

With reference to the use of chemosterilised mosquitoes, your presentation of the situation is not entirely accurate. The unit's statement that thiotepa residues break down very rapidly in the bodies of mosquitos is not a mere "claim" but is based on investigations, the results of which have been published (LaBrecque, G. C., Bowman, M. C., Patterson, R. S., and Seawright, J. A., *Bull. Wld Hlth Org.*, **47**, 675-676; 1972). The unit's statement that drinking-water wells were never used for the release of chemosterilised pupae is factually correct. Apart from considerations of safety, the use of drinking-water wells (in which *Culex fatigans* does not normally breed) would have defeated the aim of releasing sterile males at the natural breeding sites, which in the area and season concerned are disused irrigation wells. The toxic effects of the well water on laboratory-reared pupae was discovered not because these were released in the wells, but because treated pupae were placed for emergence in this water in containers which in the initial stages were floating and later suspended above the water.

You sharply criticise WHO's handling of public relations during the controversy. We may point out that as an international organisation the WHO does not make any statement which could be construed as intervention in an internal dispute or a matter falling within the domestic jurisdiction of a member state. So long as this was the case, and the question was under investigation by a Parliamentary Committee in India, it was not considered appropriate to publish on this matter.

Finally, your statement that the WHO has "pulled out" may leave a false impression with your readers. The original agreement between the government of India and the WHO establishing the research unit was for a period of six years, which expired on June 30, 1975. The unit developed much essential methodology, carried out several small scale field trials and assisted in the creation of a core group of Indian scientists fully conversant with all the aspects of the research. What is left to be done is to carry out

large scale feasibility studies of new vector control methodology in areas of southern India endemic for mosquito-borne diseases, which does not require the assistance of full-time WHO staff members. It is anticipated that this work will be carried out under Indian leadership now that the WHO has handed over the unit to the Indian Council of Medical Research on the appointed date, with continued WHO technical advice and assistance if requested.

Yours faithfully,

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SIR,—Your leader "Oh, New Delhi; Oh, Geneva" (July 31) might as well have been written by the World Health Organisation's Public Relations staff whom you hold responsible for the bad handling of the Indian press that ultimately, according to you, led to the closure of the Research Unit on Genetic Control of Mosquitoes (GCMU) in New Delhi.

The intention of this letter is not to highlight all the crucial omissions you had made (that would make the letter long) but only to correct a few statements which apparently have been taken out of the handout the GCMU had prepared in defence of its project.

You have dismissed the six-volume Stockholm International Peace Research Institute (SIPRI) series on chemical and biological warfare (CBW) in one sentence by saying that SIPRI "has reported that biological warfare (BW) could be conducted with infected mosquitoes."

The SIPRI series in fact says a lot more on entomological warfare. Like genetic control, it is also in the research stage. Our allegation that data gathered by the GCMU on mosquitoes can help BW research is supported by SIPRI which says that ecological data of mosquitos and dispersal data obtained from field trials are useful in BW.

It is well known that only female mosquitoes pick up and transmit viruses. Your categorical statement that GCMU's "work has been exclusively concerned with males" is however, incorrect. The GCMU was to have released at least 2,000 females a day at Sonapat. The male-female sexing error, as claimed by the GCMU, is 0.25% and in practice it may be higher.