SIR.—It is regrettable that your journal should have given such prominence to an article-"Doubts Over US in India" (Nature, September 20)-consisting of vague allegations and innuendoes against respected scientific bodies. In the entire article I found only three factual statements capable of verification (the others being matters of opinion) and these are quoted from a letter to a newspaper. For the rest, the author seems to rely on unnamed "Indian scientists" or "experts". No names or designations are given and it is difficult to place much value on such anonymous allegations.

I would like to state the facts about the Bombay Natural History Society and its collaborative research with the World Health Organisation (WHO) and other organisations, with which I have been personally connected, so that your readers have an opportunity to form their own judgement of the matter.

In 1957 a 'new' virus disease was detected in Mysore State. This Kyasanur Forest Disease (KFD) virus closely resembled the virus of Russian Spring Summer Encephalitis and raised the possibility that the disease was brought to India from Siberia by arthropod vectors carried by migrating birds. A collaborative study of the problem was organised by the WHO, under Dr Salim Ali as principal investigator, in which the Bombay Natural History Society studied the migratory birds and the Virus Research Centre, Poona, carried out the virological studies on the birds and their parasites. After some time, it seemed that transmission of disease by this route, though possible, was not a significant epidemiological or public health problem. The WHO, accordingly, discontinued its support of the programme. The Bombay Natural History Society continued to work, although no virological studies were possible since neither the Virus Research Centre nor the Haffkine Institute (where I was then Head of the Department of Virology) could spare the necessary staff for a study. For a time, at the instance of the WHO, blood samples were sent to the Institute of Diseases with Natural Foci at Omsk, since many migrant birds come to India from that area.

At about this time the United States Army Migratory Animal Pathological Survey (MAPS) organisation was studying migratory animals and a proposal for continuing the bird migration study in collaboration with them was accepted with the approval of the Indian Ministry of Defence. No American scientist was designated for this programme by the MAPS. In addition to the migration studies, blood smears from the birds were collected and, at the outset, were sent to the

MAPS for study. Such slides could have been provided to any other agency interested. After a while the MAPS discontinued this study and several hundred slides are still at the society awaiting study by some interested party.

Subsequently grants under PL480 funds were made to the Bombay Natural History Society in collaboration with the Smithsonian Institution for a study of bird migration, and this continued until 1973 when all PL480 grants were stopped by the Indian government. These grants are made for

Answer from India

from A. N. D. Nanavati, Bombay Natural History Society

collaborative research programmes approved by both the United States and India, and are operated by scientists from both countries. The Indian government does not accept any such research programme without careful scrutiny by independent experts. There are hopes that the grants for this study may be revived.

The main point on which suspicion has been focussed is the collaborative study with the MAPS, because of the fear that information so obtained may be useful in biological warfare. So long as there is no secrecy involved, there can be no objection to any research. otherwise we would be constrained to ban every textbook on epidemiology and communicable diseases. This research programme was open and the information was available to anybody interested. The bird camps were visited by ornithologists and other scientists from several countries (including workers from the Institute of Diseases with Natural Foci, Omsk) all of whom had full and free discussions on the information collected. Much has also been made of the proviso that the MAPS required that no material be published without clearance from it. There was no such provision in our contract, merely that the MAPS should receive two advance copies of any publication or report. With this information, the only factual charges made by 'a professor' and quoted by Mr Sehgal can easily be disposed of:—

- (1) That blood smears were sent to the MAPS for examination. They could also have been and can still be made available to any other interested party.
- (2) That two US scientists from the Smithsonian Institution were associated with the Bombay Natural History Society. One scientist, Dr Dillon Ripley was designated as the American Investigator and Dr Salim Ali was the Chief Investigator from India. This was part of the routine in any PL480 financed study.
- (3) The services of the Bombay Natural History Society and the Virus Research Centre were made available to United States Army personnel for a nominal fee. This seems to be a figment of someone's imagination. Neither the Bombay Natural History Society nor the Virus Research Centre are commercial organisations. The Bombay Natural History Society offers assistance to any serious student, wherever he comes from. No charge is made for such assistance.
- (4) That only partial results were available to the Indian participants. We have, in India, people of sufficient experience in epidemiology and microbiology to be able to assess the significance of these studies and to detect whether there were any significant omissions or false information in the results supplied. This charge is, however, a matter of opinion which could only be resolved if Mr Sehgal would disclose some of the information which he claims has been withheld.

It seems then that the gravamen of Mr Sehgal's charges is that all the Indian scientists working on collaborative research programmes with international or foreign agencies are gullible and will believe whatever their collaborators tell them. He therefore ignores the considered statement made by our President, Dr Salim Ali, but would place his faith in the rumours and 'feelings' of anonymous authorities, unsupported by a single verifiable factual statement. Can it be that there is no monopoly on gullibility?

This is not to suggest that we can afford to be careless. Dangers do exist and must be carefully guarded against. It is unfortunate that in trying to highlight possible dangers Mr Sehgal has cast aspersions on institutions and persons who are fully aware of their responsibility and have taken all possible safeguards against such dangers.