on research. Dr Cairns, who before his appointment to Cold Spring Harbor had made some elegant autoradiographical studies of DNA duplication, found on his arrival in Cold Spring Harbor an institution entirely without money, some $80,000 in debt and with physical plant requiring at least $1,000,000 for restoration to a first-class condition. Over the past five years, Cairns has worked heroically; now much of the laboratory has a strikingly pleasant appearance, and the cash reserves are up to $125,000. But after five years of this, Cairns naturally wishes to return to his scientific career.

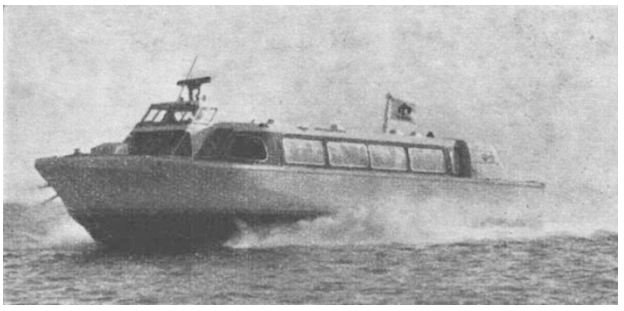
Dr J. D. Watson

The appointment of Dr Watson, already closely connected with the laboratory as a member of the Board of Trustees, and a frequent summer visitor since 1948, should allow a smooth administrative transition. He and Dr Cairns have worked closely together over the past few years, and one of Dr Watson's first aims as director will be to find an endowment for the secure backing of Dr Cairns's position as a staff member. Other immediate objectives will be to find capital funds for a new library to house Cold Spring Harbor's extensive collection of genetic literature, additional summer housing for an enlarged summer course programme and a new laboratory building for expansion of research into the area of molecular biology of higher cells, in particular the multiplication of viruses capable of causing tumours.

Another Hovercraft

HOVERMARINE, a small firm based in Southampton, has now produced its first hovercraft, the HM 2, on licence from Hovercraft Development, Ltd., which handles the patents for the National Research Development Corporation. The design is particularly interesting; the hovercraft has submerged sidewalls, so that in motion it looks much like a conventional boat (see picture).

The makers suggest that this sort of craft will be best suited to use in estuaries or rivers, where very large seas are not often experienced. At a speed of 28 knots, the craft will comfortably accommodate seas of up to 3 ft. in height; in more severe conditions, the company says, the maximum speed attainable will depend on the state of the sea and the amount of discomfort which the passengers are prepared to accept. When hovering, as in the picture, the sidewalls of the craft act as twin keels, giving the craft good directional stability. Shrewdly, Hovermarine says that this will make it possible for operators to pay realistic wage rates to the helmsmen, instead of having to employ skilled pilots. The craft will carry sixty passengers, or sixty-five at full stretch, and costs about £70,000.



The Hovermarine HM 2 on trials.

In contrast with other hovercraft designs, the Hovermarine HM 2 should be reasonably quiet in operation. It is driven by twin submerged marine screws and not by aircraft-type propellers. Motive power is supplied by two Cummins lightweight diesel engines, and the hover power is supplied by another Cummins engine. The hull is made of glass fibre-reinforced plastics, and the craft can be used from conventional jetties and quays. Hovermarine's own calculations, unsupported as yet by any statistics from operators, show that, at a load factor of 50 per cent and an average speed of 30 knots, operators could make a profit if fares were charged at the rate of 6*d*. a mile. Fares of 9*d*. a mile would produce an annual profit of £25,000 on the same assumptions, if the craft were depreciated to 10 per cent residual value in 10 years.

Research on Foreign Languages

IN spite of two British applications to join the European Economic Community, British people remain conspicuously slow at learning foreign languages. There are, however, some signs of impending change, according to the first report of the Committee on Research and Development in Foreign Languages (HMSO, 5*s*.), which was set up in 1964 under the sponsorship of the Nuffield Foundation, the University Grants Committee, the British Council and what is now the Confederation of British Industry to co-ordinate research and development and to spend a little money—mostly other people's. The chairman is Dr L. Farrer-Brown, a former director of the Nuffield Foundation.

The committee's first experiment was with the teaching of French in primary schools. It has been helped particularly by a pilot scheme begun by the Nuffield Foundation in 1963 which is intended to discover whether a modern language can become a normal part of the primary school curriculum. The report says quite frankly that there are many questions yet to be answered—what is the best starting age? How much time should be devoted to foreign languages at these tender ages? Are specialists necessary or can ordinary class teachers manage? What is the effect of teaching French on the general performance of the pupils in primary schools? The answers to some of these questions may emerge when the National

Foundation for Educational Research has finished its programme of evaluation.

Teaching languages at ordinary level (up to 16) has risen considerably during the past twenty years: the number of pupils offering Russian, for example, has increased nearly 600-fold. If the first modern language can be started in primary schools, it is hoped that more pupils will take a second modern language in secondary schools. Emphasis is now being laid on teaching the spoken language.

The growth of French teaching in primary schools has also led to a conspicuous growth of courses in colleges of education, and a handbook prepared in 1966 showed that French could be studied in 81 colleges. In recent years, language courses have also increased in further education, and it seems that some of the most successful courses have been those provided in direct response to an approach from a firm or firms in the area. Several universities now provide for the study and teaching of languages in new ways: for example, the report points out that in some universities the study and teaching of languages are linked with the study of linguistics, either within a unified centre or in a separate department.

New IBP Chairman

DR W. FRANKLIN BLAIR, professor of zoology at the University of Texas, has been appointed chairman of the United States National Committee for the International Biological Programme (IBP). He succeeds Dr Roger Revelle, director of the Center for Population Studies at Harvard University. Dr Revelle was appointed chairman at the beginning of the three-year planning period for the IBP in 1964. Now that the IBP has moved into its five-year operational stage, Dr Revelle will act in an advisory capacity only, because of his commitments at Harvard and the National Academy of Sciences. Dr Revelle was recently appointed chairman of the academy's Science Organization Development Board and now acts, in effect, as Deputy Foreign Secretary of the Academy.

Dr Blair has been associated with the United States IBP programme from its beginning. One of his positions has been as co-chairman of the Subcommittee on Environmental Physiology. He has also organized the IBP integrated research programme on Convergent and Divergent Evolution. His main interest is vertebrate biology, particularly population genetics and the ecology and speciation of mammals, reptiles and amphibians.

Drugs in School

DRUG dependence in young people under eighteen years of age in the City of Westminster has recently been investigated by a social worker under Dr J. H. Briscoe-Smith, medical officer of health for the area. The investigation, started in February 1966, was prompted because it was felt that the Health Department should have as much information as possible on the extent of the problem in the Westminster area, particularly as Soho lies within the city's bounds.

Much of the report seems to state the obvious, but it does at least prepare the ground for more extensive research. The aims of the survey were to estimate the size of the problem, whether gaps exist in the provision at present made and to see how local authorities might help. Of the fifteen head teachers of secondary schools interviewed, nine had experienced problems with pill taking by children in their schools. While about half the teachers felt that many of the young people in the fourth and fifth forms experimented with pills at some time, the others considered that this was a pattern pursued by only a small minority. It does seem, however, that the problem is more serious in schools in the "old" City of Westminster. It is also known that there are a number of young heroin addicts around Victoria Station and a number of boys who were known to be taking pills at school in the Westminster area are now heroin addicts.

Of nine youth clubs investigated, six of the larger ones reported a drug problem although it was only a slight one in three of them. Between April 1965 and April 1967, 74 young people were convicted at the Westminster Juvenile Court on charges of possessing drugs, but of these only eight were residents in the area. As the report emphasizes, this is complicated by young people passing in and out of the area, which is in the centre of London.

On the whole, head teachers were against lectures on prevention because they felt that this might draw attention to drug taking and thereby create a challenge for young people. Instead, they thought that lectures for parents might be a better idea. Most schools felt that teachers would welcome more practical information on the matter and a book is to be published later this year containing coloured photographs of pills to enable teachers to recognize them. Four Rotary clubs in the Westminster area are hoping to set up an advice centre for drug addicts, and the Men's Social Services Branch of the Salvation Army is providing a hostel for young boys on probation for drug charges. By setting up an information service, it is suggested in the report that this might assist other workers in the field such as general practitioners and probation officers. A social work service offered by the Health Department to help people with problems of drug dependency is also suggested.

On the Nature Trail

OWNERS of land in Britain with areas of natural history interest should read *Nature Trails*, a handbook produced by the Nature Conservancy (distributed by Frederick Warne, Ltd., 5*s*.). This gives advice on the setting up of nature trails—the routes along which visitors can walk, with information provided by signs, posters, pamphlets and sometimes guides.

The first nature trail was set up in 1961, many more were instituted at the time of National Nature Week in 1963, and there are now about ninety of them. Some have been set up on national nature reserves by the Nature Conservancy; the Forestry Commission has some and others have been opened by county naturalist trusts and by private organizations and individuals. (A list of more than eighty nature trails can be obtained for 2*s*. from the Council for Nature.)

Where a good guide is available—and the handbook points out that a bad guide is worse than no guide at all—the tour can be varied according to ecological changes or the interests of the visitors. On the whole, a shortage of manpower makes guided trails rare; more common are the trails for which a pamphlet describes