

University News:

Edinburgh

DR PETER S. FARAGO, at present reader in the Department of Natural Philosophy, has been appointed to a personal chair of physics.

London

THE following appointments to chairs have been made: Dr J. E. Carless, at present reader in pharmaceuticals at Chelsea College of Science and Technology, to the chair of pharmaceuticals tenable at that college; Dr W. H. Hunter, reader in pharmaceutical chemistry at Chelsea College of Science and Technology, to the chair of pharmaceutical chemistry tenable at that college; Dr. T. R. E. Southwood, reader in insect ecology at the Imperial College of Science and Technology, to the chair of zoology and applied entomology tenable at that college.

Sussex

PROFESSOR B. H. P. RIVETT, at present professor of operational research in the University of Lancaster, has been appointed to the chair of operational research. The title of professor of development studies has been conferred on Mr D. G. Seers, at present director-general of economic planning in the Ministry of Overseas Development, in respect of his appointment as director of the Institute of Development Studies which he will take up later this year.

Appointments

DR J. R. WEIR has been appointed director of the Science Secretariat in the Privy Council Office in Canada, in succession to Dr F. A. Forward, and Dr J. Rennie Whitehead has been appointed to a new position as principal science adviser with the Secretariat.

Announcements

THE trustees of the Lady Tata Memorial Fund for research in leukaemia and allied disorders have made the following awards for the academic year 1967-68: *Fellowship*, Mrs E. Davidson, Edinburgh; *Scholarships*, Dr V. Balazs, Leiden; Dr M. M. Fröhlich, Leiden; Dr R. Hancock, Lausanne; Dr L. Mazzarella, Bari; and Miss A. M. Tomkys, Cambridge; *Expenses Grants*, Dr J. Reviron, Paris, and Dr D. Viza, Paris.

CORRIGENDUM: In the communication entitled "Effect of Endotoxin on Resistance in the Early Period of Ontogenesis" (*Nature*, 214, 699; 1967) line 18 of Table 1 should read:

"*E. coli* 0111B4 : H2 361 μ g P ($P < 0.001$)"

The last sentence of paragraph 2 should read "There is a significant difference between the effect of the endotoxins of *E. coli* 0111B4 : H2 and *S. gallinarum* (in experiment II, 31.5 and 48.6 per cent, $\chi^2 = 5.22$, $P < 0.05$)."

CORRESPONDENCE

Is Weather Predictable?

SIR,—It is to be hoped that the presidential address of Dr G. D. Robinson to the Royal Meteorological Society (*Nature*, 214, 443; 1967) will not have the detrimental results predicted in the leading article in the same issue.

The literature on the Global Atmospheric Research Project and the World Weather Watch does not support the implication that the proponents of these programmes have not examined the limitations of predictability. This question has been discussed in a report by a United States National Academy of Sciences panel under the chairman-

ship of Dr J. G. Charney¹. In the section entitled "Theoretical limits of predictability", a discussion is given of estimated predictability errors.

There seems to be little doubt that until there is an adequate period of global observations, it will not be possible to make significant progress in extending numerical forecasts much beyond about two days.

On the basis of their analyses, the members of the Charney panel concluded that "... based on the most realistic of the general circulation model available, the limit of deterministic predictability for the atmosphere is about 2 weeks in the winter and somewhat longer in the summer". This conclusion is supported by research results reported in a more recent article by Dr J. Smagorinsky².

Since global observations do not exist, experimental long range forecasts cannot be made to test these conclusions. Indeed, one of the chief aims of the world weather programmes is to obtain the necessary observations so that they can be used to test and improve the theoretical models. Surely everyone agrees that "We must be careful not to mislead the potential customer". But surely, also, meteorologists must cast aside their traditional timidity and be prepared to attack a problem offering the promise of longer range weather forecasts.

No one can guarantee a return of Y dollars for an investment of X dollars in the world weather programmes, but the analyses of economic factors and the preponderance of informed scientific opinion lead to the conclusion that the world weather programmes should be supported.

The absence of guarantees of success has never hindered nuclear physicists, who have learned a great deal from huge investments in promising programmes. The same can be said about medical scientists, space scientists and others as well. Meteorologists sometimes appear to demand guarantees of success before expressing a willingness to risk public resources and scientific manpower on promising programmes. This attitude, in the past, has held back progress in the atmospheric sciences.

In the case of the world weather programmes, the odds of success are high. Certainly there can be no doubt that the programmes will greatly increase our knowledge and understanding of the atmosphere. Without such understanding, any hopes for making longer range forecasts are likely to be frustrated. Unless the world weather programmes now under consideration are pursued actively, progress in the atmospheric sciences will suffer a staggering blow.

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¹ *The Feasibility of a Global Observation and Analysis Experiment*. Publication 1290 (National Academy of Sciences, Washington, DC, 1966).

² Smagorinsky, J., *Bull. Amer. Met. Soc.*, **48**, 89 (1967).

The Bat

SIR,—Bats are second only to the rodents in the number of their species. Approximately one thousand species of bats have been described.

It is a pity that the authors of the interesting letter "Cholinesterase in the Melanocytes of the Bat" render their communication (*Nature*, 214, 846; 1967) almost valueless by omitting to state which species of this enormous host they have investigated. The differences in anatomy and physiology between the members of this huge order of mammals are great.

For shame!

Yours, etc.,

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Stansfield,
Suffolk.