

where he obtained a first in Part II of the Natural Sciences Tripos in Physiology. He received an M.D. degree from Harvard Medical School and also qualified in medicine at Cambridge. After three years as research student in Cambridge under Lord Adrian, he became a Prize Fellow at Trinity College. A year at the Wilmer Institute of the Johns Hopkins University was followed by his appointment in 1953 to a demonstratorship in physiology in Cambridge and his election to a fellowship at King's. In 1958 he became an assistant director of research. Dr. Barlow has done important work in eye movements and stabilized retinal images. He is best known for his original research involving the discharge characteristics of retinal ganglion cells, first in frogs, and later, in collaboration with Kuffler, in cats. More recently his interest has been directed to an analysis of threshold responses as signals detected against biological noise, and this has led him to investigate the quantum efficiency of the visual system and to postulate the now widely accepted concept of 'dark light'.

### U.S. Manpower in Science and Technology

STATISTICAL information on the distribution of the 500,000 scientists, nearly one million engineers, one million technicians and 250,000 teachers of science and mathematics in secondary schools in the United States (about 3.6 per cent of the civilian labour force) is summarized in a booklet *Profiles of Manpower in Science and Technology* issued by the National Science Foundation (Pp. 36. Washington, D.C.: National Science Foundation, 1963). This specialized manpower in science and technology is now growing at the rate of about 4.3 per cent each year and is expected to become 4.7 per cent of the labour force in 1970, when the present estimated 1.435 million scientists and engineers are expected to reach 2.14 millions. Of the present total 255,000 are physical scientists or mathematicians, 160,000 in the life sciences, including psychology, 85,000 social scientists, 170,000 civil engineers, 220,000 electrical engineers, 240,000 mechanical, aeronautical or astronautical engineers and 305,000 industrial or chemical engineers. About one scientist in five and one engineer in a hundred has a doctor's degree. About one in every hundred teachers of science and mathematics in secondary schools has a doctor's degree. Industry in 1960 employed one out of every four scientists and four out of every five engineers, as well as 630,000 out of the 875,000 technicians. Of the remaining technicians, 155,000 were employed in Federal, State or local government service and only 40,000 in colleges and universities; for scientists the corresponding figures are 75,000 and 130,000, and for engineers, 110,000 and 25,000. Of this 1,275,000 scientists and engineers in 1960, 135,000 were employed in research (55,000 in industry, 50,000 in universities), 290,000 in development, 395,000 in production and operations, 125,000 in administration and management and 80,000 in teaching. Of the scientists, 20,000 were more than 59, another 20,000 between 55 and 59, 30,000 between 50 and 54 and 40,000 between 45 and 49. At the other end, 30,000 were less than 25, 75,000 in the age group 25-29 and another 75,000 between 35 and 39, while 90,000 came in the 30-34 group.

### The Medical Research Council

THE Medical Research Council has recently agreed to set up one new research unit and four new research groups: The Psycholinguistics Research Unit, at the Institute of Experimental Psychology, University of Oxford, under the honorary direction of Prof. R. C. Oldfield, will study problems of speech and language both in normal people and in those with neurological and psychiatric disorders. The Research Group on Respiration and Energy Metabolism in the Newborn, at the London Hospital Medical College, under the honorary direction of Prof. K. W. Cross, will investigate such problems as the neonatal

control of breathing, the respiratory response to hypoxia and gaseous metabolism in the baby. The Research Group for the Study of Genetic Problems in Orthopaedic Disease, in the Department of Orthopaedic Surgery, University of Edinburgh, under the honorary direction of Prof. J. I. P. James, will carry out family studies to elucidate the pattern of inheritance in congenital orthopaedic conditions. The Research Group on Megaloblastic Anaemia, at the Postgraduate Medical School of London, under the honorary direction of Dr. D. L. Mollin, will be primarily engaged on research into the pathogenesis of megaloblastic anaemia and intestinal malabsorption syndrome. Certain aspects of the pathogenesis of refractory sideroblastic anaemia will also be studied. The Research Group on the Immunological Aspects of Dermatology, at the Institute of Dermatology, University of London, under the direction of Dr. J. L. Turk, will study the pathogenesis of contact sensitivity and delayed type hypersensitivity.

### British National Committee for Food Science and Technology

FOLLOWING a recent meeting of representatives of the main organizations concerned, a provisional British National Committee for Food Science and Technology has been constituted as follows: *Chairman*, Prof. H. D. Kay; *Vice-Chairman*, Dr. J. G. Davis; *Members*, Dr. A. J. Amos, Dr. E. C. Bate-Smith, Mr. A. P. Buchanan (chairman, Food Group, Society of Chemical Industry), Dr. J. B. M. Coppock (chairman, Food and Nutrition Group, Royal Society of Health) and Dr. J. D. Mounfield (chairman, Provisional Council, Institute of Food Science and Technology of the United Kingdom). Prof. Kay and Drs. Davis, Amos and Bate-Smith are British representatives on the International Committee for Congresses in Food Science and Technology. The main function of the Committee will be to co-ordinate the activities of the British organizations in this field. Further information can be obtained from Dr. J. G. Davis, 9 Gerrard Street, London, W.1.

### British Chemicals and their Manufacturers

THE Association of British Chemical Manufacturers has brought up to date its guide, *British Chemicals and their Manufacturers*, which supplies information on all chemical products made by its members (Pp. 230. London: The Association of British Chemical Manufacturers, 1963). In the present edition a new method has been adopted, whereby the principal manufacturing interests of the companies listed are indicated by a series of group classifications. Three major categories are recognized, namely, inorganic chemicals, organic chemicals and 'specialized products', which are sub-divided into 6, 5 and 33 sub-sections, respectively. The "Directory of Members" lists names, addresses, telephone numbers and telex numbers, telegraphic addresses and indicates by means of group classification the type of chemicals produced. The "Classified List of British Chemical Products" lists alphabetically all chemical substances produced by members of the Association, indicating "commercial grades" and "fine chemical, pharmaceutical, pure, analytical and similar grades". Lists of "Proprietary and Trade Names" and "Proprietary and Trade Marks" are appended. In the present edition indicators and microscopical stains are incorporated into the "Classified List".

### The Australian Journal of Chemistry

THE *Australian Journal of Chemistry*, which has appeared quarterly from its inception until 1962, will in future appear more frequently. Because of the increasing amount of material submitted, together with the desirability of reducing the time between submission and publication, it was decided to issue six bi-monthly numbers in 1963 and to institute monthly publication from January 1964. This decision was made partly because of the