

Beers, R.F. Jr.; Bassett, E.G. (eds.): **Recombinant Molecules: Impact on Science and Society. Proceedings 10. Miles International Symposium.**

New York: Raven Press 1977. xvi, 540 pp. Hard bound \$ 56.55

An immensely readable book describing all the excitement of present day recombinant research, this volume is the proceedings of the 10th Miles International Symposium held at the Massachusetts Institute of Technology. The excitement stems from the finding that excised segments of DNA from two different species could be reassembled in the test tube to form a hybrid DNA molecule which can then impose new genetic controls on a cell into which it is introduced. This new technology, which appears to provide a foundation for the creation of new organisms with desired genetic characteristics, has also caused much concern among scientists and laymen alike. It has been widely felt that the new technology could result in the creation of unique forms of agents of infection (or of forms adversely affecting the environment) whose biological behaviour cannot be completely predicted.

The social impact of recombinant DNA technology is therefore dealt with at length in the final section of the book, and includes chapters by various authors on attitudes to the new technology in both USA and Europe, considerations on industrial risk and ways of overcoming the hazards, including an appendix with guidelines for research involving recombinant DNA.

Technical and background information on recombinant research is not neglected. Thus, the book begins with a section on technological advances, wherein the techniques enabling scientists to manipulate genomes and cross major species barriers are discussed. This is followed by sections on the development of plasmid vectors, applications in plant genetics, and discussions on virus vectors and the cloning of eukaryotic DNA. Contributors to the volume comprise 90 of the world's leading scientists with expertise in this new field. Although the editors in an epilogue to the book, conclude that 'both the proponents and opponents must temper their predictions somewhat as the knowledge about the possibilities of recombinant DNA research and technology becomes more complete and sobering in its implications for man and its environment', the genetic engineering era has aroused much concern and interest, and is explained fully in this volume both in scientific and social terms.

J.F. Jackson, Glen Osmond

Eccles, J.C.: **The Human Mystery. The Gifford Lectures 1977-1978.**

Berlin-Heidelberg-New York: Springer 1979. 255 pp., 89 figs., 7 tabs. Hard bound DM 34,-

Sir John Eccles, the Nobel Laureate of 1963, was invited by the Gifford Lectureship Committee of the University of Edinburgh to give a series of lectures on Natural Theology. The intention of these interdepartmental lectures, since 1887 an annual event under the terms of the endowment of the late Lord Gifford, is to promote and diffuse 'the study of Natural Theology in the widest sense of that term - in other words, the knowledge of God'. The broadmindedness of the English scientific community is again

demonstrated by the wide range of these lectures which serve to uncover many extraordinary contingencies on the way to discovering the origin of each one of us as a consciously experiencing being. Eccles has chosen the topic of Human Mystery because he believes that it is vitally important to emphasize the great mysteries that confront us when we as scientists try to understand the natural world, including ourselves. The position he has chosen is 'frankly and unashamedly' anthropocentric. In a noble and respectful way he begins his lectures with an homage to his great master, C.S. Sharrington, who gave these lectures forty years ago, and then continues with a criticism on the fundamentals of Monod's 1970 book 'Le Hazard et la Nécessité'. The whole course emits an atmosphere of wonder and humility before the greatness and immensity of the cosmos - and a post-naïve astonishment. Beginning with the great 'Big Bang', the author discusses the origin and evolution of the universe, the planetary system and the planet Earth. Turning then to the subject of the origin of life and biological evolution, he concentrates on human evolution. Basing his lectures on his own life-long work, he places a strong emphasis on cerebral development, the evolution of language and values, learning and memory. The chapters on the structure of the neocortex and conscious perception are the most fascinating to read. In the last lecture he comes to a critical evaluation of the various hypotheses that have been developed in order to explain mind-brain interactions. According to Eccles this interaction occurs in a two-way process of information flow across the frontiers between the self-conscious mind on one hand and the liaison areas of the brain on the other. This is a radical dualistic interaction theory of brain and mind.

H.F. Linskens, Nijmegen

Announcement

International Symposium on Chinese Cabbage

The International Society of Horticulture Science, the Japanese Society for Horticultural Science and the Asian Vegetable Research and Development Center will organize the first International Symposium on Chinese Cabbage. The Symposium will be held from March 31 to April 5 1980 at the Tropical Research Center, Tsukuba, Japan.

Scientists specialized in research *Brassica campestris* ssp. *pekinensis* and closely related subspecies will review the latest knowledge in the fields of breeding, evolution, incompatibility, production potential, protection and management.

Information can be obtained from Dr. N.S. Talekar, AVRDC, Po. Box 42, Shanhua, Tainan 741, Taiwan, or Dr. Takashi Kuriyama, Dept. of Plant Breeding, Vegetable and Ornamental Crop Research Station, Kusawa, Ano, Age-County, Mie-Prefecture, 514-23, Japan.