

From East to West

David Clark

Chemical Research in Toxicology. Editor Lawrence J. Marnett. *American Chemical Society*. 6/yr. US \$269, Europe \$280, elsewhere \$283 (institutional); US \$46, Europe \$57, elsewhere \$60 (personal).

Biomedical and Environmental Sciences. Editors Frederick Coulston and Chen Chunming. *Academic*. 4/yr. UK £77, North America \$100, elsewhere \$112, (institutional); UK £40, North America \$60 (personal).

By their very nature, toxicology and environmental science are wide-ranging subjects. They extend to all aspects of our well-being and relationship with our surroundings, and draw on virtually all scientific disciplines.

Both are fertile fields and a great attraction to publishers, who can opt for one of two strategies for their journals — the specialist or the generalist. Provided that a specialized journal finds a niche with few established rivals, it stands a better chance of being bought, read and quoted widely than a general one which has to face chillier winds of competition for quality papers. One of the journals reviewed here

Linking up

Ian Croall

Neural Networks. Co-editors-in-chief Shun-ichi Amari, Stephen Grossberg and Teuvo Kohonen. *Pergamon*. 6/yr. DM370.

THE arrival of this journal, described as "The Official Journal of the International Neural Network Society", accompanies the commercial emergence of neural networks as a defined topic after a long period of gestation.

The origins of the subject lie in attempts to understand the workings of the brain at all levels — biological, chemical, psychological and so on. Now there appear to be two extremes in approach. At one end there are those concerned with using the ideas inherent in the work to produce more powerful computer systems without much regard for biological fidelity. At the other we have people whose prime objective is much the same as the original one, that is the construction of models which help to extend our knowledge and understanding of brain functions.

Neural Networks intends to cover the whole of this spectrum. The first two issues contain excellent introductory articles from two of the gurus of the

is specialized, the other general (although with a unique difference).

Chemical Research in Toxicology publishes papers on modern techniques of chemical analysis applied to toxicological problems, the identification of novel toxic agents and reactive intermediates, and the metabolism of toxic agents. An invited review or perspective on some aspect of chemical toxicology appears in each issue. As would be expected of a journal of the American Chemical Society, it has been able to sustain publication of quality research papers, particularly in chemical analysis and reactive intermediates. The invited reviews and perspectives have been particularly well chosen and are of high quality.

The editors have emphasized their commitment to speed of review and publication, and so far have done very well in this respect. Only time will tell, however, if this can be maintained after the honeymoon is over. Now that *Chemical Research in Toxicology* has clearly established itself in North America, more international contributors would be welcome to ensure the journal a wider area of authority.

Biomedical and Environmental Sciences is a completely different animal and difficult to judge by normal standards. Its stated scope is very wide and embraces the biological and toxic effects of environmental pollutants on human beings and

subject, Kohonen and Grossberg, though the connectionist point of view, reflected by Rumelhart and McClelland in their book *Parallel Distributed Processing*, is not represented. The contributions, in the first issues are of a high standard and do indeed cover the subject area well, which is most important as many traditional disciplines are involved and papers dealing with them have hitherto appeared in a wide variety of often obscure journals.

NEURAL NETWORKS

Theoretical papers come from people with a variety of backgrounds, and provide a challenge to the reader with their divergent approaches to the subject. There is rather less information on applications and comparisons with 'conventional' methods, and the emphasis is on the whole away from the biological.

Throughout, the standard of production is well up to that expected of Pergamon Press. At its present size and quality, *Neural Networks* is good value. □

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other forms of life, with special emphasis on scientific findings in China. Indeed the editorial board state that this "is not just another journal, but a forthright decision to help overcome the Chinese Scientists' years of frustration and underdevelopment".

To this end the editors undertake to help with their contributors' English, which they have done to such good effect that the Chinese papers are indistinguishable from those written by native English speakers. The scientific quality of the articles is variable, however, ranging from standard reviews by European or American authors, such as Zbinden on animal alternatives and Munroe on risk assessment of carcinogens, to specific articles on Chinese epidemiology. Interestingly, the editors point out that because the Chinese are generally less mobile and their patterns of food consumption and pollution are

Chemical Research in Toxicology

fairly localized, there are valuable opportunities for epidemiology studies without some of the usual confounding factors.

The flow of general review articles by Westerners is likely to slow during the coming years and *Biomedical and Environmental Sciences* will then stand or fall on the quality and relevance of the Chinese contributions. One wishes a journal with the aim of opening the door to Chinese toxicology well. We must hope that recent political events in China do not close the door before the journal can make its mark. □

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BBA 1,000

ONE of the first journals to be published by Elsevier was *Biochimica et Biophysica Acta* (BBA), which was launched in 1947. This month, the journal celebrates the appearance of its 1,000th volume.

The 1,000th volume is given over to the republication of notable papers in BBA. Accompanying them are commentaries by one or some of the original authors, setting the particular scientific finding in context and reflecting on developments since then.

Among the contributors are E. Chargaff, who writes about the paper "Studies on the Structure of Ribonucleic Acids", published in 1951; J. Brachet ("Proteines de Structure de Szent-Györgyi et Thymonucléohistone", 1947); A. Kornberg ("Enzymes Synthesis of Deoxyribonucleic Acid", 1956); S. Ochoa ("Enzymes of Fatty Acid Metabolism", 1953); C. de Duve ("Intracellular Localization of Catalase and of Some Oxidases in Rat Liver", 1960); and M. Calvin ("Intermediates in the Photosynthetic Cycle", 1956).

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