in the body; a number of exciting *in vivo* experiments have shown remarkable therapeutic benefits; delivery of oligonucleotides to cells in an active form occurs at reasonable concentrations; cost of manufacture is falling rapidly; and most oligonucleotides seem relatively non-toxic with large therapeutic windows".

Antisense Research and Development was launched in 1991 and it is now an outstanding success. Results from the early days, on the stability and uptake of particular compounds, and on their resistance to nucleases in the serum, are now being re-examined in the light of antisense technology. Serious scientific and therapeutic questions are being asked about delivery and uptake of oligodeoxynucleotides, their metabolism, mode and specificity of action, and localization in cells. The design of new modified stable compounds is taxing chemists, drug companies and young businesses. Many articles covering all these research fields have been scattered among a whole range of journals, so a publication that pulls the work together under one cover is to be welcomed.

A useful feature of the journal is the comprehensive reporting of conferences and the bibliography of the burgeoning antisense literature. There are also guest editorials and brief communications. Provided that drug companies remain interested in antisense therapeutics, I foresee a happy future for the journal. □

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Genetic markers

David Skibinski

Molecular Ecology. Editors Terry Burke, Ray Seidler and Harry Smith. *Blackwell Scientific. 6/yr. USA and Canada $335, Europe £205, elsewhere £225 (institutional); USA and Canada $61, Europe £35, elsewhere £41 (personal).*

WHAT would a molecular-biologist time-traveller from the early 1960s ask when confronted with a journal called *Molecular Ecology* that carries photographs of dragonflies or colourful plants or mysterious diagrams (dot blots) on its cover. "Have the frontiers of science been pushed so far back and reductionism been so successful that ecology is now explained by the interactions of molecules?" Or perhaps: "Are ecological theory and principles now being applied to the molecular physiology of living organisms?" A geneticist time-traveller from a decade later might more easily guess the truth — that the DNA revolution has brought a plethora of techniques for measuring genetic variation. This is the secret of this journal.

Some of these techniques are marvellous, and have opened up areas of population biology, such as paternity analysis in birds or the fate of genetically manipulated microorganisms released into the environment, that were difficult or impossible to investigate with protein electrophoresis. A generation of population biologists with enthusiasm for ecological problems dulled by the craving for the next good gel or autorad will need ever-increasing journal space. *Molecular Ecology* provides a home for this work and is therefore likely to have a good chance of survival.

The editors admit that the term molecular ecology is both vague and trendy. Rather than imposing their own definition, they instead hope that the scope of the journal will be determined by the papers submitted. Nevertheless, there are guidelines, with emphasis on the molecular investigation of natural and introduced populations and their environments and on the ecological implications of the release of recombinant organisms. Over the first 18 months, DNA fingerprinting, restriction fragment length polymorphism analysis, polymerase chain reaction and random amplified polymorphic DNA are the techniques very much to the fore (though allozyme analyses are not banned). The species are scattered across the entire range of living organisms with genetically modified organisms and microorganisms holding their own. On the theoretical side, disciplines related to population genetics dominate. The time-traveller might be disappointed to see little on the ecological implications of variation in patterns of gene expression.

Technique is exalted, yet it is used in almost all contributions only as a means of discovering genetic markers. Perhaps no more can be expected at the moment, but it will be important for the editors to guard against the journal becoming a dumping ground for papers using trendy techniques but with little theoretical interest. However, the juxtaposition of papers on plants, animals and microorganisms investigated using the same molecular techniques is interesting and instructive.

The journal is well produced and has an attractive format. Contributions in the form of full papers, short communications and technical notes are permitted. There are also extremely useful mini-reviews of specific techniques. What comes across clearly is the ambition and enthusiasm of the editors for establishing a good-quality, rapid-publication journal that is of interest to all population biologists. □

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Blood relations

A. D. Whetton

Stem Cells. Editor-in-chief M. J. Murphy Jr. *AlphaMed. 6/yr. USA and Canada $150, elsewhere $162 (institutional); USA and Canada $85, elsewhere $97 (personal).*

Journal of Hematotherapy. Editors-in-chief Adrian P. Gee and Nancy H. Collins. *Liebert. 4/yr. USA and Canada $114, elsewhere $154.*

DURING the past few years there has been great progress in our understanding of the mechanisms underlying the regulation of haemopoietic cell proliferation and development. The results of this research have rapidly found clinical application in haematology and oncology, for example in developing new approaches to cancer treatment, bone marrow transplantation and immunotherapy.

Although both journals are very much concerned with haemopoietic stem cells, they concentrate on different aspects of haematology. Previously published as the *International Journal of Cell Cloning*, *Stem Cells* is a mixed bag of original papers, book and software reviews and concise reviews of recent advances in oncology and haematology. As with its predecessor, these informative and useful reviews are one of the main attractions of the journal. They are generally of high quality, as indeed are many of the original papers. The scope of the papers, however, is as broad as many haematological and leukaemia research journals; as such there is little to differentiate *Stem Cells* from better established journals.

Journal of Hematotherapy, on the other hand, has gone for a specialized niche. The journal concentrates on the collection, purification, storage and *in vitro* manipulation of haemopoietic stem cells for use in transplantation. This is plainly a multidisciplinary area deeply affected by the recent rapid advances in experimental haematology. The journal achieves its stated goal in that it encompasses practical and theoretical aspects from several disciplines applicable to the *in vitro* manipulation of stem cells. It contains meeting reports, articles on guidelines and regulations, news from companies, readable reviews and (in the main) accomplished research articles. It should be a great aid to those involved in stem cell manipulation for clinical use, while also providing useful background information for nonspecialists. □

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