

# MEDICAL JOURNALS AND MOLECULAR MEDICINE

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## The Picower Institute for Medical Research

"A revolution in the quality and efficiency of health care is in the making. The rational design of diagnostics, drugs, and vaccines made possible by molecular biomedical science, in conjunction with statistical methods designed to eliminate bias in the evaluation of these intervention, will dramatically change health care delivery by the turn of the century and beyond." (1) The four major weekly medical journals are trying to cope with these polar changes. While they are doing well on the statistical side, drastically improving the quality of these efforts by emphasizing large-scale randomized clinical trials and meta-analyses, their coverage of the burgeoning field of molecular medicine is relatively meager. Using the molecular medicine database published in each issue of this journal it was found that less than 10% of the articles in the *New England Journal of Medicine* and *The Lancet* cover this important new area, while virtually nothing appears in the *Journal of the American Medical Association* and the *British Medical Journal*. This problem has been recognized recently in an editorial in *The Lancet* (2), which has raised several issues worthy of discussion in *Molecular Medicine*: the definition of the field, the role of clinicians, the potential over-selling of this relatively new discipline, and communication of molecular systems to clinicians and medical systems to non-medical investigators.

Scientific American's pioneering *Introduction to Molecular Medicine* was devoted largely to genetic diseases. *The Lancet's* definition, which was similar to that presented in the first issue of *Molecular Medicine*, included the basic science fields of immunology, biochemistry, genetics and molecular biology, but was also concerned with "the pathogenesis of disease at the molecular level" associated with "the designing of specific molecular tools for diagnosis, treatment and pre-

vention." The *sine qua non* for publication in *Molecular Medicine* is that the focus is molecular and that it deals with a specific disease. Suffice to say, therefore, that we conceive of *Molecular Medicine* as a medical journal devoted to the cutting edge of molecular science. Conversely, we realize that much of the literature of molecular medicine is produced by non-medically qualified scientists. Their work is fundamental to this field, and we are privileged to publish their papers in the journal and to welcome them as members and fellows of the Molecular Medicine Society.

*The Lancet* evinced concern for budding clinicians working with "nucleic acid fragments on gels rather than patients—sometimes earn[ing] them the dismissive label of 'bar-code doctors,'" and for how this sort of training and experience could be integrated into a clinical career. We would reply, in the same way it has always been for clinical investigators working in both the laboratory and the wards. The problem today, however, is the competition afforded by the influx of scientists with MD/PhD and PhD degrees into biomedical research and their virtually full-time devotion to the laboratory (3).

*The Lancet* also raised the legitimate question of promising too much too soon, and cited Inder Verma's excellent article "Gene Therapy: Hopes, Hypes, and Hurdles" in the first issue of the journal. Since *Molecular Medicine's* view of the field goes beyond genetic diseases and gene therapy, it greatly increases both the scope and the opportunities. Given that, and knowledge of the power of this area of study, we do not believe that our hopes are unrealistic.

While *The Lancet* cited our statement at the launch of *Molecular Medicine* that molecular medicine provides a "common language and understanding among clinical groups", it was legitimately concerned about clinicians' understanding

of the field. As a clinical investigator in that most arcane and complex field of biomedical research, immunology, I breathed a great sigh of relief when I realized, through the incomparable prose and pictures of Jim Watson's books, that molecular biology is the simplest of all fields of medical research, its foundation essentially being that DNA makes RNA which makes proteins. We are considering the possibility of working with a major weekly journal to produce a step-by-step Watsonian series on Molecular Medicine for Clinicians. Conversely we might also do a series for non-clinicians in *Molecular Medicine* on molecular cardiology, neurology, gastroenterology, dermatology, infectious diseases, etc. In a series of efforts to improve communication we have introduced the structured abstracts pioneered by the medical journals, we also provide summaries describing the molecular rationale and the clinical purpose of each paper published in the journal. Reviews, like Inder Verma's, are also pro-

vided. The particular challenge, however, is to avoid over-simplification.

We are pleased at *The Lancet's* interest in molecular medicine and at the opportunity that they have afforded us to clarify our concepts of this fascinating, integrative, and potentially useful field of medical investigation.

## REFERENCES

1. Warren KS, Mosteller F. (1993) Preface in Doing More Good Than Harm: The Evaluation of Health Care Interventions, *Annals of the New York Academy of Sciences* **703**: xi-xii.
2. The Lancet. (1996) Acceptability of the "bar code doctor." *The Lancet* **347**: 555.
3. Nabel GJ. The MD PhD physician scientist—endangered species or the next generation? **1**: 369-370.

# ANNOUNCEMENTS

## CHANGE IN SUBMISSION PROCEDURE

Following the example of *PNAS*, the Editors have decided to change procedures for submitting articles to *Molecular Medicine*. From now on, articles from authors who are not contributing editors should be sent directly to the Editorial Office. Manuscripts deemed suitable for the journal will be referred to a contributing editor who is an expert in the field and who has agreed to undertake the rapid review of the manuscript, soliciting opinions from at least two outside reviewers. There are two reasons behind this change: 1) it will allow the Editors to keep an accurate record of submission dates, so that these can be published with the article, and 2) it should facilitate submissions from authors who do not personally know a contributing editor. In addition, we believe that the new procedures will ensure consistently rapid publication of articles since the Editors will not be able to keep track of their review.

This change will go into effect immediately. For more details, please refer to the Instructions for Authors at the back of this issue.

## MMS MEETING HIGHLIGHTS

The next issue of *Molecular Medicine* (July 1996) will include highlights of the first annual meeting of the Molecular Medicine Society, held in Washington, DC on May 3, 1996.