

EDITORIAL

From Decades of Growth—Toward The New Opportunities of the 1990s

With this first issue of 1991, we celebrate the 20th year of publication of the *Journal of Cellular Biochemistry*. The stylish cover, larger page size, and new text format are design modifications that herald more substantive changes in editorial scope and organization reflected on our masthead—changes undertaken in keeping with the rapid and far reaching advances being made in biological and biomedical research.

This journal began publication in 1972 as the *Journal of Supramolecular Structure*, created as a forum for research on structure-function relationships in supramolecular constructs. Witness to the birth of new concepts and technologies in the decade that followed, the Journal was broadened in response to the research revolution in molecular biology that ushered in the '80s. A European Editorial Office was established under the direction of Max Burger. His shared leadership with Founding Editor C. Fred Fox positioned the Journal (re-titled *Journal of Supramolecular Structure and Cellular Biochemistry*, and then its current, more succinct *Journal of Cellular Biochemistry*) to better meet the needs of the international scientific community. The ensuing period produced an explosion of fundamental discoveries that proceeded rapidly to commercial and clinical application. For example, the production, through genetic engineering, of hormones and glycoconjugates that regulate steps in cell reproduction and morphogenesis has become commonplace. Foreign genes are being introduced into humans using approved experimental protocols. Cells propagated *ex vivo* are being used ever more broadly in innovative therapies. Multi-germline tissues have been generated in the laboratory and are being developed for clinical trials. An initiative is underway to sequence the human genome. The power of novel technologies such as PCR and antisense nucleic acids has only begun to be felt in the laboratory and the clinic.

While these past decades of growth have been exciting, the '90s promise unprecedented advances in our understanding of mechanisms that

govern fundamental biological processes, at the center of which should be the integration of cell structure and the regulation of gene expression as related to cell function, cell reproduction, cell specification, and tissue development and renewal. These breakthroughs in our understanding of cell regulation, to be paralleled by biomedical applications, promise to solve longstanding clinical challenges that have been unapproachable by conventional methods of diagnosis and treatment.

To meet the opportunities and challenges presented by these new technologies, we have worked extensively over the past year to effect a major overhaul of the *Journal of Cellular Biochemistry*. A primary goal was to refine the editorial purview of the Journal and reconstitute its Editorial Board to ensure effective topical and geographic coverage consistent with that broadened scientific scope. A second concern of equal importance was to revise the style and purpose of editorial features published, in response to clear changes in how research and its reporting are approached by today's biomedical scientists.

The Editorial Board has been restructured and expanded to facilitate prompt and expert refereeing of work across a broad range of interest to our readership. We have enlisted leaders in key areas where biological problems are being pursued, and where biomedical applications are undergoing development.

An editorial committee has been established, comprised of three Executive Editors and a group of Field Editors to be developed further over the next year. Gary Stein, who has already contributed considerable energy and creativity to our planning, has joined us as Executive Editor, and shares responsibility for developing editorial policy, setting standards for manuscript style and quality, and sustaining efforts to maintain and develop an Editorial Board that is responsive to new scientific developments, concepts, experimental approaches, and applications. The Field Editors will complement and expand upon the

scientific expertise of the Executive Editors and, in addition to helping them orchestrate the review process, will promote an active board by fostering improved communications among board members, referees, and authors on both a topical and a geographic basis. Procedures have been streamlined to facilitate rapid review and publication.

EDITORIAL SCOPE AND NEW FEATURES

In addition to affirming our interest in original articles on broad aspects of cellular biochemistry, we have introduced two new editorial features, entitled **Viewpoints** and **Prospects**, to confront the issue of communicating multidisciplinary research. These will be junctures for technology exchange, and may dwell at the interstices between topical areas of fundamental research, between basic and applied areas of inquiry, or between areas where research knowledge already is being applied.

The distinction between fundamental and applied research has blurred considerably—a trend that may be even more pronounced during the next decade. Twenty years ago, the molecular biologist concentrated on fundamental research because applications were difficult to divine. Now, applications are almost difficult to avoid. Solutions to many of today's more interesting and important problems require concurrent efforts in technology development and fundamental research exploration. The scientific culture has changed as well. Teamwork has become essential as many attractive targets demand skills and technologies not often found at a single campus or company. Consequently, the proportion of multi-authored papers involving multiple institutions has increased markedly. This trend toward collaborative, multidisciplinary work has placed additional burdens on those who rely on the primary literature. A reader may be expected to be "expert" in several fields, or at least quite conversant in several complex technologies in order to understand the approach, data, and conclusions reached in a single paper. We are acutely aware of this concern, and have instituted the new features to aid our audience, and promote scientific exchange.

Research articles are the mainstay of any scientific journal. The *Journal of Cellular Bio-*

chemistry will continue to serve as a primary forum for articles that describe multidisciplinary approaches, and in which complex cellular, pathological, clinical, or animal model systems are studied by molecular biological, biochemical, quantitative ultrastructural, or immunological approaches. These areas include conditions, agents, regulatory processes, or differentiation states that influence structure, structure-function relationships, or assembly mechanisms in cells, viruses, or supramolecular constructs.

Prospects will offer insightful overviews and outlooks on emerging areas of research. Items appearing in this section will examine key problems, concepts, and research opportunities in an in-depth and systematic manner, yet from a broad biological perspective. **Prospects** will not be simply reviews in the traditional sense, but perceptive overviews of timely issues, intended to point to directions that may lead investigators to insights that can serve as the basis for strategic planning of future experimental approaches and applications.

Viewpoints will offer a provocative forum for editorials, news items, meeting summaries, announcements, book reviews, and letters to the editors.

Our editorial scope is purposely broad, and extends to cell structure and function; organelle assembly; regulation of cell organization, reproduction, or differentiation; and the development, organization, or remodeling of tissues. We will encourage authors to develop, more fully, the introduction and discussion sections in multidisciplinary reports so that the objectives and significance of the work are more clearly explained to a broad readership. We recognize that the dissemination and assimilation of life sciences research require a balance among the analysis of fundamental concepts, the elaboration of experimental approaches, the elucidation of basic biological mechanisms, and the rational development of biomedical applications at which research efforts may be directed. We encourage you, the readers of the *Journal of Cellular Biochemistry*, to help us achieve this balance as we embrace the challenges that lie ahead.

The Executive Editors