



ICSU  
SHORT REPORTS  
VOLUME 8

# Advances in Gene Technology: Protein Engineering and Production

Proceedings of the 1988  
Miami Bio/Technology Winter Symposium

Edited by  
Keith Brew, Fazal Ahmad, Harvey Bialy,  
Sandra Black, Roger E. Fenna, David Puett,  
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# PREFACE

This is the record of a meeting that in the Miami Winter Symposium series was the 20th such event, but which appeared in a new guise as the Miami Bio/Technology Winter Symposium, the result of an agreement between the Miami Winter Symposium organizers, Bio/Technology Magazine and the Nature Publishing Company to pool our resources and hold joint concurrent symposia in the same location, instead of holding separate symposia on biotechnology and gene technology in different cities at different times. We embarked on this experiment with the confidence that a program of parallel, basic-oriented and applied-oriented symposia, presented under the same roof, would represent a highly attractive, and very efficient means of disseminating information in this rapidly expanding and interactive area of technology.

Accordingly, the 1988 Miami Bio/Technology Winter Symposium was held at the Hyatt Regency Hotel/University of Miami/James L. Knight International Center during February 8-12, 1988 under the sponsorship on the one hand of the Department of Biochemistry and Molecular Biology of the University of Miami School of Medicine, and its Papanicolaou Cancer Research Center, and on the other by Bio/Technology magazine and Nature Publishing Company.

We joined forces in exposing advances in gene technology in the area of Protein Engineering and Production. We continued to honor leaders in the field, with Mark Ptashne presenting the Lynen Medal Lecture and the Distinguished Service Award to Leroy E. Hood. On this occasion a new award was instituted, the Special Achievement Award, given to Y.L. Wang. We gratefully acknowledge the financial support for these awards provided respectively by GIBCO/BRL Research Products Division of Life Technologies, the Biomedical Division of Elsevier Science Publishers and BIOSEARCH.

The proceedings of the Symposium are published in the ICSU Short Reports format and are arranged in the order in which they were presented. In each section the 2-page Reports from invited speakers are followed by the relevant 1-page Reports that correspond to the poster presentations.

Each presentation is intended to be a complete and original communication that may be cited in the literature as forming part of ICSU Short Reports, Volume 8, 1988.

The ICSU Short Reports represent a new method of reporting symposia proceedings. This volume was part of the registration package for Symposium attendees and was simultaneously placed on open sale by IRL Press on behalf of the ICSU Press.

This reporting format began for us in 1984, with the 16th Miami Winter Symposium. It was intended to address the problem associated with the widespread use of posters to present short communications at scientific meetings. These posters are extremely informative. They are put together with a great deal of pains, but the poster is displayed for only a few hours, and, in a large meeting, is often not seen by many of the participants. All that remains for posterity is the abstract that was prepared many months before the meeting, which was already out-of-date at the time of the meeting, and which was contained in a book of abstracts which does not find its way into libraries and therefore the information could not be retrieved.

The new format used here is an attempt to allow the presenter to commit the poster to paper. The page can be used to convey a great deal of information by way of introduction, methodology, results, conclusion, bibliography, diagrams, figures and tables. Produced to a deadline less than 3 months before the meeting, the Short Report acts as an up-to-date, permanent record of the poster. The simultaneous availability of the volume of Short Reports to libraries and persons who could not attend the meeting places the report in the body of retrievable literature.

Along with these advantages is the inclusion of two-page reports from the invited speakers, produced to the same deadline and available at the time of the Symposium, not, as is customary, many months later. What is presented here is a succinct but complete and documented statement. Via the bibliography, the reader is directed to explore the subject in more depth by being referred to the original seminal papers on which the speaker's contribution was based.

We have been much encouraged by the reception accorded to the Short Reports, of which this is the eighth volume. The series to date is listed on the verso page. We regard this as the beginning of a new form of rapid communication which is certain to attract its imitators, a trend that we encourage. The concept of the Short Report is described in detail by L. Ernster and W.J. Whelan, *FASEB J.* 1 (1987) 423-424.

The ICSU Press, as a new publishing house, which began publishing in 1984, merits mention, and more details are to be found in this frontispiece. It is the publishing house of ICSU, the International Council of Scientific Unions, an international non-governmental, scientific organization made up of 20 international scientific unions, together with more than 80 national members, scientific and national associates. More familiar than ICSU itself are the individual members such as the International Union of Biochemistry, a union member, or the Royal Society of London, a national member. ICSU is the "United Nations" umbrella organization that allows these different unions and national members to come together to confront problems of common interest, and take advantage of opportunities for collaboration that are only possible on an international, interdisciplinary scale.

ICSU's headquarters are located at 51 Bd. de Montmorency, 75016 Paris, France.

### **The 1988 Miami Bio/Technology Winter Symposium Organization**

The co-sponsors of the 1988 Miami Bio/Technology Winter Symposium were:

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# THE ICSU PRESS

The ICSU Press, the publishing house of the International Council of Scientific Unions (ICSU), was founded in 1983. The aim was to establish a publishing house to execute publication programs that will render service to the ICSU family and the cause of science. These programs could be sole initiatives of the ICSU Press or be in partnership with the Unions and/or Committees.

It was enjoined that all ICSU Press publications have the highest standard of content and reporting, should be consistent with the mission of ICSU, and bring an increased awareness of ICSU to scientists and those bodies that support and fund science.

The ICSU Press is intended to be of service to the ICSU Unions and Committees in respect of their publications, by way of advice on all technical and administrative aspects, and by way of negotiating contracts in which the Press may or may not be a partner with the ICSU family member. On request, the ICSU Press will act as the publisher of a Union or Committee publication.

- The above objectives are achieved by the following means:
- Undertaking publication projects on behalf of any ICSU family member or group of members.
- Initiating interdisciplinary projects that are beyond the scope of any one ICSU member.
- Acting as a source of advice to ICSU members engaged in publication activities, or acting as an expert negotiator with publishers on behalf of the ICSU member.
- Developing recommendations concerning contracts for the publication of journals and books, and publication activities in general, so that these may be used as guides by ICSU family members.
- By means of the ICSU newsletter (Science International) and brochures, advising the ICSU family of ICSU Press activities.
- Producing service publications on behalf of ICSU and its members.
- Studying new communications technologies and advising ICSU members thereon.
- Paying special attention to the publication needs and aspirations of Third-World scientists.

Publication began in 1984. Already over 30 symposia and monographs have been published and three journals have been launched: BioEssays (1984-), the Journal of Tropical Ecology (1985-) and BioFactors (1988-). In the press is our first semipopular volume: 'A Revolution in Biotechnology'.

Further information about the ICSU Press, and a brochure of its publications, can be obtained from the Chairman, The ICSU Press, P.O. Box 016129, Miami, Florida 33101-9990, USA or from the ICSU Information and Press Officer, ICSU Secretariat, 51 Bd de Montmorency, 75016 Paris, France.

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